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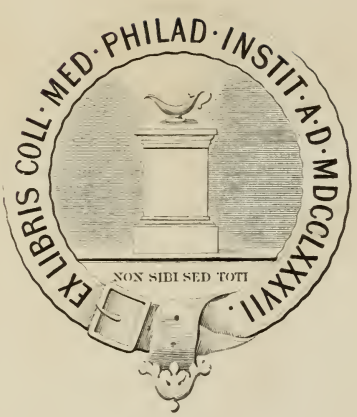


Presented by
C. W. Dulles, M. D.

TRANSACTIONS

OF THE

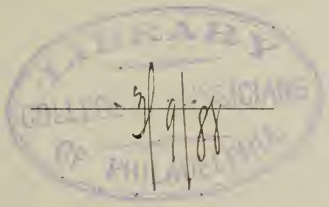
Homœopathic Medical Society

OF THE

STATE OF PENNSYLVANIA.

Eighteenth Annual Session.

1882.



PITTSBURGH:

From the Press of Stevenson & Foster, 151 Wood Street.

1882.

To the Homœopathic Medical Society of Pennsylvania:

We herewith respectfully submit the proceedings and papers of the Eighteenth Annual Session of your Society.

Z. T. Miller, M.D.,
R. E. Caruthers, M.D.,
J. F. Cooper, M.D.,
T. M. Strong, M.D.,
Committee of Publication.

Allegheny, Pa., November, 1882.

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	D. M. Graham, M.D.,	Altoona.
	Maria N. Johnson, M.D.,	Philadelphia.

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PROCEEDINGS

OF THE

EIGHTEENTH ANNUAL SESSION

OF THE

Homœopathic Medical Society

OF THE

STATE OF PENNSYLVANIA.

ALTOONA, PA., September 5th, 6th and 7th, 1882.

The Society was called to order at 2 P. M., by Dr. John C. Morgan, President, who proceeded to deliver his annual address, as follows:

FELLOW MEMBERS OF THE STATE SOCIETY:

According to time-honored custom, it becomes my duty as well as pleasure, to initiate these anniversary proceedings by an address, which may pass in review the progress of the year, either in general medicine, or in Homœopathy, or both.

My predecessor, fresh from the World's Conventions in London, having ably recounted the work of the profession at large, I may at this time vary from that path, and satisfy myself with a consideration of merely homœopathic interests and activities.

These are, as you know, two-fold: the external and the internal. We will refer to both.

The *external* interests of Homœopathy are largely comprised in our social and political status. The former is all that a reasonable ambition can ask; our patronage being propor-

tioned to a much greater numerical strength than we, as a branch of the profession, actually possess; whilst the wealth and respectability of our clientele are beyond criticism. Our friends are everywhere, not excepting the very governors and teachers of allopathic institutions.

Notwithstanding this, I am ashamed to be obliged to confess that often these friends of ours are too timid to assert our claims to medical and surgical appointments in such institutions. They, indeed, do not hesitate to say to us, "Oh, doctor, it *would never do*—ours is an *allopathic* institution, you know." (I recite literally.) Our plain duty is to teach them better—"line upon line—precept upon precept—here a little and there a little"—having ever in mind that *every* allopath is fair game for the homœopathic hunt; and every allopathic institution only a homœopathic estate in chancery.

Notable exceptions have recently occurred. Witness the State Asylum for the Insane at Binghamton, N. Y., which has been transferred to homœopathic management. The case of the Cook County Hospital, in Chicago, is also most striking. Already, in that most magnificent of municipal hospitals, our brethren stand the acknowledged peers, in medical and surgical science and practice, of their old school colleagues, who have gracefully accepted the inevitable; and the fruit of that great tree already begins to mature for the garner of homœopathic literature.

Our *national* position, just now, is particularly important and interesting. To this subject I desire to ask your most earnest attention, as the prompt and united efforts of all homœopathists are imperatively needed to bring about a successful issue.

The Committeé on Legislation of the American Institute of Homœopathy reported in June last upon the medical service of the army and the navy, and also of the marine hospitals under the jurisdiction of the Treasury Department. That committee, through its sub-committee, aided by the Hon. Charles O'Neill, M. C., conferred with the three Secretaries upon the admission of homœopaths to examination for appointment in their respective departments.

These communications were, as usual, referred to the several surgeons-general for advice. Dr. P. S. Wales, medical chief of the navy, replied that no discrimination is made for or against any school of medical practice; and the answer of the Secretary embodied this statement, which crystallizes the policy. The way is now open, as it was not of old, for the entrance of duly qualified young men of the homœopathic profession into the medical service of the navy. I would warn such, however, that the prize is yet not to be had, but by dint of extraordinary talent, consummate tact, and indomitable energy.

One would naturally suppose that our young men would be not less acceptable in the army and the marine hospital service than in the navy; but the surgeon-general of the army (Dr. J. K. Barnes) saw fit to embody in his letters to the Secretary of War what Senator Benton would have called "a stump-speech in the belly of it" against Homœopathy, *et cetera*. These letters, with the whole correspondence, are published in the Transactions of the Institute. Dr. Barnes having since been retired, we sought to make the confirmation of Dr. Crane as his successor contingent upon his willingness to do us justice. Such proceedings being in secret, we are not informed as to his status.

The surgeon-general of the marine hospital service (Dr. J. H. Hamilton) was too wary to commit himself so completely, declining, as he said, to decide any such question in advance, accomplishing the same end by adding that "the qualifications of all candidates are determined alone by the examining boards;" thus securing the service against Homœopathy quite as effectually as in the army, whilst shielding the medical chief against every complaint of wrong. With many of us, the tender mercies of allopathic boards are too well known by experience, to permit a doubt of this conclusion.

Thinking it high time to claim all our rights in the national medical service, and to put forth a moiety of our political and social power, the sub-committee prepared a joint resolution, which was placed in the hands of Mr. O'Neill shortly after the Institute had received and endorsed this report. After attaching a penal clause, that gentleman introduced it in the

National House of Representatives; and simultaneously it was presented in the Senate by Mr. Cameron, of this State. Pennsylvania thus leads the van in the national legislature in behalf of our school.

This joint resolution was admitted in each House by unanimous consent, read twice, ordered to be printed, and referred to the proper committee. Encouraged by such evidence of good will, the sub-committee, with other physicians, endeavored to secure immediate and final action; but it was found impossible, and by the advice of Mr. O'Neill, the subject was passed over to the December session of Congress.

The resolution provides "that it shall be a misdemeanor, punishable by a fine of $500 and dismissal from office, for any officer of the United States Government, civil, military, or naval, to make discrimination in favor of or against any school of medical practice, or its legal diplomas, or its duly and legally graduated members, in the examination and appointment of candidates to medical service in any of the departments of the Government." The second section enacts that all examinations shall be held in public, and the details recorded in the Library of Congress. A letter since received from our junior senator, Mr. Mitchell, doubtless declares the temper of Congress generally, saying that he "can see no reason in the world why there should not be perfect equality between the different schools in government service."

The tenor of this proposed enactment reveals the lines of battle of our adversary, and, at the same time, his weak points and our own strong ones. His is a warfare for medical caste and prescriptive "rights;" ours is a struggle for the very birthright of American citizens, viz.: a fair and equal field, and no favors to any; or, in the terse language of our statesmen, for "equality before the law." No member of Congress, surely, can find it in his heart to oppose, in any way, so reasonable a measure.

We must not, however, risk its failure by inaction or lukewarmness. Every homœopathic physician ought now to constitute himself a committee to secure the vote of the member for his own district, and to obtain numerous signatures to du-

plicate petitions, asking the two houses of Congress to pass the resolution at as early a date as possible. The members of the committees having it in charge will be duly addressed on the subject of an early report to each house. Physicians and laymen may well unite with the Committee of the Institute, to secure the desired results. I commend it to your favorable consideration. The members of this Society will doubtless do their full share of work to this end. The Society might properly instruct its own Legislative Committee to co-operate actively in the movement.

To return to more homely matters, another of the external elements of progress is the appointment of homœopaths as physicians to the poor, as vaccine physicians, and as members of local health-boards. It is a matter of surprise that our young, as well as older men, do not more frequently compete for such positions. We may, however, account for this by the fact that they so readily and quickly obtain a paying practice everywhere. Nevertheless, they should not ignore the moral effect, at least, of such appointments.

Lastly, the influence of State recognition of and money patronage to homœopathic hospitals, in creating public sentiment and stimulating private generosity, in addition to the material advantages, is very great. Our brethren in Allegheny county have set a good example in this, as in so many other ways. Standing firmly and together, they have made a successful application to our State legislature, obtaining the handsome sum of $50,000 for the benefit of the Pittsburgh Homœopathic Hospital. The Philadelphia Hospital, for various reasons, has not been so successful, but during the coming legislative session, it is hoped its application will be duly granted. I confidently invoke the earnest support of the homœopathic fraternity throughout the State in securing the votes of members of the legislature in their respective districts. The Philadelphia Hospital is open to patients from every county, and may well expect the active aid of the profession. This policy, on the part of the allopathic school, long ago secured a half million of dollars for their two college hospitals. It would be a lasting disgrace to us to fail in the same quarter.

The *internal* elements of homœopathic progress are quite like those of every other organization. The forces of faith and unfaith, of conservatism and radicalism, of devotion to authority and contempt for the same—the identical currents which sway every other realm of human thought and action —are in lively activity among us. These forces are as old as human nature, and will surely continue to the end of time. Let not the conservative imagine that he can coerce his wicked radical brother to accept conventional proprieties as God's truth; and, on the other hand, let not the bugle of radicalism proclaim a premature triumph over the stupidity of conservatism. Both are living forces—immortal as humanity itself; both are necessary to the common good, and to each other; let neither boast itself against the other and say, "I have no need of thee;" let neither say of the other, "he is a vile mongrel;" or, "he, an idiot." High authority reminds us that even "our uncomely parts, we count worthy of double honor." Naught is gained, on either side, by admitting, much less repeating, these reproaches of our adversaries—for such they are. Moreover, we proclaim, almost unanimously, "absolute liberty of professional opinion and action;" whereas, the license often indulged in by our warriors on both sides betrays, not a resolve to maintain and retain their own liberties parallel with those of others, but to possess themselves of other men's liberties also. A monopoly of liberty is autocracy, quite the antithesis of our favorite maxim. Happily, every such attempt, on either side, has thus far been effectually rebuked by the good sense of our profession.

Once the Hahnemannians were the radicals, young, earnest, vigorous, successful; now, experience having ripened their wisdom, and years tempered their heat, the tables are turned, and a semi-allopathic reaction figures in the role of radicalism, calling the Hahnemannians to instant surrender. They, like the old war-horse, love still the call to the charge, and gallantly sally forth to avenge the affront. The smoke clears, and both sides are happy in assured victory. Microscopy and Mathematics, Rhetoric, Ridicule and the Milwaukee Test are all pointed at the Hahnemannian citadel, which of

course returns shot for shot, with no less weight of metal, whilst the common enemy looks on, awaiting our mutual destruction.

Let this no longer be; let there be mutual support, forbearance, and respect; respect for the opinions and action of our brethren who differ as well as of those who agree with us. Even "mutual admiration" might do us all good, as it did the "Autocrat of the Breakfast Table" and his friends.

With this preface, it will do no harm briefly to consider our differences at this very hour.

"The Theories of Hahnemann" are, ostensibly, the bone of contention among professed homœopathists. These "theories" are supposed by many to be quite outside and independent of the LAW which we all accept. Others, yet more radically reactionary, impugn besides the full sufficiency of the law itself; these, indeed, are more consistent than the former, for it would be easy to show a connection more or less complete between "the law" and "the theories."

For the present, then, let us ask, is the law, SIMILIA SIMILIBUS CURANTUR, true, sufficient, exclusive and universal? And we reply, without a moment's misgiving, *it is all of these* IN ITS OWN SPHERE. Having determined what *is* its own sphere, we promptly find the value of x, the answer to our main problem.

The dictum of Hahnemann, at the very opening of the Organon, informs us that the sole duty of *the physician* is to heal the sick. Common sense does not forget, however, that the physician's function does not preclude the possibility of his acting the part of a citizen or friend, and thus becoming, at the same moment a nurse, or still further, and more probably, a *surgeon*. As a nurse, he may, and must, do many things merely to assuage and palliate suffering, altogether beside any hope of healing. Yet more, as surgeon, or obstetrician, he must often act only as a mechanic in the first instance, sometimes even to the destruction of living substance, laying aside for the nonce the office of the physician altogether; afterwards resuming it for the purposes of after-treatment. In Europe the two branches of our art diverge; here they unite. In Europe the distinction is no strange one, and to Hahnemann it was nor-

mal; in America the combination, or more truly, the alternation of medical and surgical functions is the constant condition of practice. No one is *purely* a "physician;" hence, no one can be absolutely hedged in, in his duties, by this initial dictum. Hahnemann and his immediate disciples, however, were accustomed to rescue so many cases from surgery—cured so many ulcers, tumors and other so-called surgical cases with medicine only, that they held the surgery of their day in deserved contempt; thus the old-time feud between these two branches of the profession, generally active as it was at that time, became greatly intensified through them, of whom a few remain to this day, who can barely endure and who scarcely do justice to surgery, or even obstetrics.

Such, happily, do not prevent our progress. We who are to-day here have ourselves witnessed, as well as fostered, the rehabilitation among us of these once neglected branches; and our well-rounded future career already opens before our hopeful eyes.

To what do these reflections tend? To this, viz.: that however true of the *mere* "physician," in the old European sense, the American general practitioner of to-day cannot be limited by Hahnemann's dictum. He cannot be always the physician; and as a surgeon, he must primarily contemplate his duties from an entirely new point of view.

The fundamental idea in a purely medical case is, that Nature tends to cure; that the living forces are not only fully adequate thereto, but that *no other* force can cure. The physician, if true to his office, never attempts *coercion;* he does not, *as such*, even "assist" Nature; he simply SOLICITS her, and, through drug-dynamics, invites her attention to weak and neglected points by the similimum; he does not conquer, does not overwhelm her in the name of the disease; does not ravish or destroy, but only woos her; secures the *vis medicatrix* to work, not at hap-hazard, but with definite intent. Thus, not only in expectancy, but in true medicine also, that is, in Homœopathy, it is Nature only which cures, just so far as the work is truly done. *True medicine* inquires only, what can this sick organism be persuaded to do for itself? *Surgery*,

on the contrary, inquires, simply, what can I do to this organism, or what can I compel it to do for me? I can amputate, and extirpate, and coerce Nature; I ask no favors of her; she is bound to answer me, and I will wring from her the reply I want, and thus I will make the sick well. Thus do the whole of the old school profession; thus are they *always* surgeons; for the same idea of coercion which guides the knife also guides the pen which dictates the tyrannic drug.

Does Nature succumb to this compulsory doctrine and practice? Yes, she succumbs, but too often the disease does not, for Nature is denied the possibility of doing what she only can do, and which she most desires to do—abolishing the malady and healing the sick. Disease proper, which is but a morbid physiology, needs not surgery—not even the surgery of drugs.

Nevertheless, a fractured bone, a mortified limb, a stone in the bladder, does need coercion—*needs surgery*. Thus, there is a great gulf between the functions of the purely medical man and the pure surgeon; which, however, is not too deep and broad for the allopathic Colossus to bestride. Unlike the alternate passing to and fro of the homœopathic practitioner, the allopath remains rigid—a surgeon of the knife to-day, a surgeon of drugs to-morrow—the tyrant of Nature evermore.

What is the moral for our side? It is two-fold: First—the allopathic system is an exclusive one—for it is *exclusively surgical in its ideas* of drug-action and the drug-cure of disease, thus excluding a just *medical* theory; and so it is that the now classic phrase, "an exclusive system," with which a true medical philosophy can make no terms, belongs not to us but to them. Second—we may well beware lest, adopting exclusively medical ideas, we be found as guilty as they. In other words, it behooves us to inquire whether we may honestly confine our surgery to that of the knife—or whether there may not be for us, as well as for them, a surgery of drugs. Our practice—indeed the practice of some of the purest homœopaths in active surgical life already answers this question with a loud *aye!*

Anæsthetics, antiseptics, and other commonly used agents

are in point. Their after-effects, of course, need the pure physician.

Once *at all* admitted, the consistency of the surgical or non-homœopathic use of any or all drugs by homœopathic practitioners in daily practice becomes a pregnant question. Many are satisfied by declaring their absolute independence of all trammels, and by boldly asserting the insignificance of the homœopathic law. This, however, satisfies no one who has any power of logical thought, or has ever witnessed the vastness of the expanse of disease which it has successfully dominated. Permit me to say, I think the doubt relates properly and only to the question: may we use drugs for surgical ends? May we evacuate scybala from the rectum by crude aloes, or must we always prefer the scoop or the syringe? Must we refrain from mustard emetics in all but poisoning cases? May we commend this same mustard as a condiment at dinner, in certain cases, whilst repudiating it after dinner?

These are only a few familiar illustrations of the difficulty which sooner or later appeals to each of us. I do not here affirm the propriety of such measures. I only open the question whether a homœopath who uses them, however thoughtlessly and empirically, may not, after all, be pursuing a just line of supplementary surgical action. Nevertheless, he is bound to give a better reason than that of mere personal independence, or the "weakness of Homœopathy."

Let me be understood—I would reassert the truth, the sufficiency, the universality of the homœopathic law in its own sphere—that is, in medical cases. The question I raise is strictly this only: Must we probe all the ways of life to discover and forbid to patients under treatment, as did the early homœopaths, all things savoring of drug-power, and operating crudely? Or may we *utilize* such things when convenient, without prejudice to our consistency, or to the security of our main position. I confess the best thought of us all is needed in preparing the answer. For one, I am satisfied with the general results of strict construction, and believe that to be the shortest way at present to therapeutic perfection.

The law sustained, the theories of Hahnemann remain to divide us still.

First: The theory of *vitalism.* Hahnemann was a man of his age, in this. To him, not more than to others of the best medical philosophers, the *vital force* was a separate entity, like the soul; presiding, semi-intelligently, over the living functions and tissues. Thirty years ago, we were all of us so taught; and the doctrine is renewed this day in the most advanced Evolution theories; for what is *Bathybius* itself, but life-force embodied in slime?

To Hahnemann's logical mind, sickness could never come to the living body, except by primary disorder of this vital principle; hence, all disease is force-disorder, above all — a *dynamic* derangement—a semi-spiritual affair, therefore; and for such a state of things, crude drugs were meaningless. Only semi-spiritual, or dynamic medicines could be suited to the healing of the sick life-force.

The premises being scientific, who can scorn Hahnemann's logical conclusion?

Second: His theory of Homœopathy itself. He shows that two dissimilar diseases may coexist; but not two similar ones —for they destroy one another—the stronger the weaker. The similar drug produces *its specific disease;* this artificial disease destroys the natural one; so he argues.

Trousseau admits the same in his doctrine of cure by *substitution* of the localized drug-disease. The reactionists say, "No, *similia* is but a guide in the selection of the drug; this *acts,* not similarly at all in the cure, but antagonistically." I think the Hahnemannian philosophy has nothing to fear in comparison with this. Moreover, Hahnemann's conclusions as to *dose,* and his views of drug-aggravation, stand as the necessary corollaries, and these also have not yet been overthrown. Trousseau's premise is Hahnemann's justification.

Third: The theory of the alternative, or "primary and secondary, opposite effects of drugs," etc. This is, however, disbelieved by few, and is even now influencing, more and more, all medical thought. It is scarcely a theory—it is an observed fact. Dosage here again comes to view, and is generally believed to depend upon the primary and secondary fluctuations of cases in some way.

Closely connected with this, is his doctrine of *reaction*; that is, impressions (as of drugs) made upon the vital principle, are dynamic impressions, constituting the primary *drug-action*; and these are sure to be followed by the secondary dynamic *response* of this life-principle in a contrary direction; in other words, by a *vital reaction*; hence the double phenomena. We might boldly assert the truth of this doctrine; and just here is the fatal mistake of allopathy. Recognizing only the first, it allows nothing for the inevitable second—for the first represents surgery; the second, true medicine. Forgetting the schoolboy's lesson, that "action and reaction are equal," they miss half of every truth in therapeutic theory.

Fourth: The theory of *dynamization*; that is, that drugs develop, in the attenuating processes, powers unobserved before, and lose none; at first sight, a paradox. A few imagine that this has been finally throttled. By no means; it is still a living issue. We know not whether matter consists of substantial atoms possessed of a limited size and inseparable force, as some say; or whether the so-called atoms are only infinitessimal and unsubstantial foci of variable and *communicable* force. If even substantial, we know not whether hydrogen, or, better, the "universal ether" of Young, be not the prototype—the starting point of creation for every variety of matter; whether we may at will change this ether by concussive contact with previous drug-atoms, as in the preparation of our potencies, into new atoms of this same kind. We know not if we may say, aye; we know not if nay. Meantime, each of us believes or disbelieves, not by force of superior wisdom, but because such is our nature. I may mention a single illustration, however, which we all admit, viz.: that natrum muriaticum[30], and not the crude salt, is a potential drug.

Fifth: The *psoric theory*; the theory that chronic diseases depend upon miasms, of which the most important is a systemic poison derived from repelled itch, or *psora*.

How many of us have blushed for Homœopathy in the past at the mention of this! Yet now the most advanced experimental physiology proves that the blood may be poisoned by absorption of effete animal products of various kinds;

that artificial tuberculosis can thus result from intentional cutaneous or subcutaneous irritation, (by inoculation of even a particle of leather); and that cheesy and other degenerative matters of natural origin, when absorbed, not only poison the blood, but also often establish new foci of disease in important organs. The *acarus* (not, by the way, an unknown element in psora, to the mind of Hahnemann) is simply an irritant, perhaps; but it is as good an irritant as any, and its absence is indifferent also; Hahnemann's "psora" embraces many forms; and the fact remains that cutaneous disease, like any other, may form the noxious matters, whilst infective absorption is more likely to occur therein when external suppression is obtained by stimulant applications than in the ordinary career of internal diseases. Metastatic foci, chronic, and too minute for easy detection, would readily fulfill the description which Hahnemann gives of the hydra, latent psora. Again, his other "chronic miasms," syphilis and sycosis, are supported by the best modern authorities. The former, indeed, is not disputed; the latter is sustained in respect to gonorrhœal rheumatism, which Ashhurst and others mention as a probable form of pyæmia.

We have, then, no reason to be ashamed of or to discard "the theories of Hahnemann." The God of Nature spoke to that venerable sage. Hahnemann bowed to the inspiration, and gave us the Organon of Homœopathy. We may well lay aside apologies, and follow so illustrious an example. We may well be proud of him, at all points; and of one another, as the disciples of a seer who, when the discoverers of these facts were as yet in their cradles, not only gave to the world the principles of Homœopathy, but reduced all of them to successful practice. Truly, we are partners in a goodly heritage.

In conclusion, I confidently ask you to pardon any of those deficiencies which inhere in your presiding officer as in others, and to grant me your aid in making the present meeting one of our best.

Dr. B. W. James moved that a vote of thanks be tendered

to the President for his address, and that a committee of three be appointed to whom it may be referred.

Dr. Dudley, First Vice-President, appointed Drs. B. W. James, J. C. Burgher and Hugh Pitcairn to serve as this committee.

On motion of Dr. Dudley, amended by Dr. B. W. James, who desired that the Bureau of Ophthalmology and Otology be allowed to report first, the programme as arranged by the Secretary, was adopted.

The following members and visitors were present:

Members.—W. D. Hall, D. M. Graham, M. J. Buck. J. W. Allen, J. R. Humes, Theo. M. Johnson, J. A. Bullard, Maria N. Johnson, B. F. Betts, B. W. James, P. Dudley, J. C. Morgan, M. M. Walker, C. Van Artsdalen, J. F. Cooper, L. H. Willard, J. C. Burgher, W. J. Martin, C. F. Bingaman, J. H. McClelland, S. F. Shannon, S. W. S. Dinsmore, R. E. Caruthers, Hugh Pitcairn, E. C. Parsons, J. K. Lee, of Johnstown.

Visitors.—E. O. Anderson, of Braddock; T. M. Bulick, J. U. Walter, W. B. Miller, of Altoona; H. J. Evans, of Tyrone; D. E. Bottorf, of Phillipsburg.

Dr. J. F. Cooper, Treasurer, presented the following report:

REPORT OF THE TREASURER.

To the Homœopathic Medical Society of Pennsylvania:

I beg leave to report that at the last annual report there was remaining in my hands as Treasurer of this Society a balance of - - - - - - - - - $ 98.07

Sold one copy of Transactions, - - -	3.00
Donation of Allegheny County Hom. Med. Society, - - - - - - - -	200.00
Received from members of Society outside of Allegheny county, - - - - -	25.00
And as dues of membership, - - -	346.00
	$672.07

Paid for hall and page at West Chester,	$ 18.00	
Postage and mailing Transactions, 1881,	53.46	
Printing and binding " "	600.00	
Balance in hand September 5, 1882, - - -		$ .61

Respectfully submitted.

J. F. Cooper, M.D.,
Treasurer.

The report was then referred to Drs. Betts, Walker and Willard, as Auditing Committee.

The committee presented the following report:

REPORT OF THE AUDITING COMMITTEE.

The above account has been examined and found correct.

B. F. Betts, M.D.,
L. H. Willard, M.D.,
M. M. Walker, M.D.,
Auditing Committee.

There being but one member of the Board of Censors present, on motion, Drs. Burgher and Dinsmore were appointed to complete the Board.

The report of the Corresponding Secretary was then presented.

REPORT OF THE CORRESPONDING SECRETARY.

To the Homœopathic Medical Society of Pennsylvania:

Your Corresponding Secretary would respectfully report that about the usual amount of work has been done during the year, the principal correspondence being that required in conducting the business of the Society, there having been no communications received that require action by the Society.

Notices of the present meeting were sent to all the physicians in the State, and an invitation extended to all homœopathic physicians to meet with us.

The usual invitation was extended to all county and local societies to contribute papers to this Society. The societies of Philadelphia and Allegheny counties, that of the Lehigh Valley and that of Western Pennsylvania have responded, and the papers will be presented through the appropriate bureaus.

The total expenses of this office for the year have been $35.26, which includes the announcements of this meeting and the cost of some blanks, etc., needed for future use.

There is one point in regard to the affairs of your Corresponding Secretary, whom custom has made custodian of the surplus publications of your Society, that I wish to speak of.

There are in my possession, belonging to this Society, 912 volumes of its Transactions. These are variously distributed through the different years, from forty-two volumes of the first pamphlet published, to one hundred and twenty-five volumes of 1874-8.

I bring this matter to your notice for two reasons: 1st. In the hope that some means may be devised by which we can dispose of this vast accumulation; and 2d. To urge upon you the duty of purging our roll of membership of those who never attend the meetings, contribute papers, nor pay their dues. As long as their names are continued on the list of members, your Committee of Publication feels obliged to print enough copies of the proceedings to supply them; but as their dues are not paid, their copies are left on our hands to accumulate.

Of last year's volume a smaller number was printed, and if all the members on the roll pay their dues, and become entitled to their books, there will be but ten copies left, and even these could have been disposed of if they had not been held at too high a figure. While we publish our proceedings, we must publish enough for every member, but after the members are supplied, every dollar that is gotten by the sale of Transactions is that much clear profit. If you have any demand for them, let them go at a nominal price—anything is better than to keep them until they must be sold for waste paper, or until they accumulate in such quantity that storage room must be obtained at an expense to the Society.

Respectfully submitted.

R. E. Caruthers, M.D.,
Corresponding Secretary.

Dr. Willard moved that a committee of three, of which the Corresponding Secretary shall be chairman, be appointed to take into consideration the report just read, and report in New Business.

Drs. Willard and Walker were appointed.

The report of the Publishing Committee was then presented by the Corresponding Secretary.

REPORT OF THE COMMITTEE OF PUBLICATION.

To the Homœopathic Medical Society of Pennsylvania:

Your Committee of Publication would respectfully report that the papers and proceedings of the session of 1881 were arranged for publication soon after the adjournment of the Society; but owing to circumstances, which were only partially under the control of the committee, the issuance of the volume was delayed until the first of February of this year.

The volume, as most of you are aware, contains 398 pages, and is bound to correspond with that of the preceding year. The entire cost of publishing and delivering the copies to the members was six hundred and twenty-seven dollars and seventy-four cents. One of the principal causes of delay was, as usual, the incomplete or hurried manner in which many of the papers are prepared and presented. When papers are sent in an incomplete or unfinished condition, the authors, of course, want an opportunity to revise their productions, and consequently numerous requests for proofs of papers are received. Your committee lost just one month by complying with these requests last fall, and the time lost just then threw our work on the printers during their busiest season, and caused more delay.

But the loss of time is only a part of the annoyance. Many of the proofs sent were returned without any alteration whatever, thus entailing a loss of time unnecessarily; but those which were altered were changed and added to in such a way that the cost of making changes was greater than the original cost of setting-up the article. This expense the Society is not able to bear at present, and it should be the study of every member to avoid involving the Society in the slightest unnecessary expense. This can all be entirely avoided by a little more care and forethought on the part of those sending papers, for they can be written just as they are to appear in the volume, and thus save changes and corrections.

We hope that the law in regard to unfinished and incom-

plete papers will be strictly enforced at this session, so that the Publishing Committee can begin its work immediately after adjournment, and thus give you your volume without delay.

Respectfully submitted,

R. E. Caruthers, M.D.,
For Committee of Publication.

Dr. J. F. Cooper, the Committee on Subscription, reported that he had received as a donation from the Homœopathic Medical Society of Allegheny county, $200, and from members of this Society outside of Allegheny county, $25.

On motion, the report was received and the committee continued.

Dr. Willard, Chairman of the Legislative Committee, presented the following report:

REPORT OF THE COMMITTEE ON LEGISLATION.

To the Homœopathic Medical Society of Pennsylvania:

Your committee, in view of the fact that our medical opponents have from time to time applied for and received large appropriations from the State for hospitals, asylums and colleges, would recommend a more earnest and determined effort on the part of the entire profession of the State to obtain that official recognition which we ought to deserve. But to accomplish this, we must enlarge our membership, and by united effort increase our power. The laity, and those in authority, will judge of our earnestness by the interest which we show in maintaining our own organizations. The small number of members which usually attends our annual gathering will not create the impression or carry the influence, that a Society representing the interests of the profession throughout the State should do, and which it can be made to do. The annual meetings of this Society are the only public demonstrations which we have of Homœopathy in the State. Just as we increase the strength of the Society, so we increase our own individual strength. If we do not rally to the interests of the State Society and make it a centralizing force, all

that will be accomplished in regulating medical legislation or obtaining special appropriations and official recognition, will be done by individual or local interests, possibly to the detriment of the interests of some other locality. Your committee is not unmindful of the work accomplished by the last Legislative Committee, and the example furnished by the united efforts of its members and the hope of accomplishing still more in the future, are the reasons for this suggestion.

The cause which your committee represents could be still further advanced, if the individual members of the Society would make a personal effort to inform the chairman or the members of the Committee on Medical Legislation of any facts which might be utilized in promoting favorable legislation.

The names of those favoring or patronizing the practice of Homœopathy, who form official boards of various institutions or departments where medical attendance is necessary, or who are members of the legislature, etc., would be an example of the facts referred to in this suggestion.

Previous consultation and mutual aid in furthering the introduction of Homœopathy into State institutions, so that there may not be any conflict of interests or efforts, would also aid very much the advancement of Homœopathy to a deserved recognition.

Boards of control are more ready and willing to *give* Homœopathy, as a practice of medicine, an official recognition than we have been to *ask* it. They do this, not from any influence of, and in some cases, we are sorry to say, not from anything due, the profession, but as a simple act of justice to the increasing number among the people who employ this practice of medicine. A case which came under our own observation will illustrate this point. The poor board of one of our cities had always been in the habit of appointing two physicians of the old school to represent the two divisions into which the city was divided. The board was composed of thirteen members, three of whom only had any favorable idea of our system, or employed homœopathic physicians. A homœopathic physician made application for a position, asking that he might be ap-

pointed for the benefit simply of those who desired this treatment. On motion of the staunchest opponent to Homœopathy, so far as belief in or use of it was concerned, the application was favorably received and the appointment made without a dissenting vote. The salary was made equal to that of the other medical appointees.

We are not at present advised of any special contemplated legislation in relation to medicine in general or Homœopathy in particular.

In view of the fact, not only of an increasing demand, but also an increasing necessity for an advance in our medical curricula, and the impossibility of preventing the establishment of numerous diploma-conferring schools throughout the country, we deem it advisable to suggest that this Society take a firm, and by doing it now, a foremost stand in favor of a State or National (and for the interest of the whole country, preferably the latter,) examining and degree-conferring power. This would end at once and forever all quibbles about "regular physician," of which we have heard so much within the last year or two. Such a degree would be recognized the world over. The "plucked" applicants would very soon show the status of the college or colleges from which they come. When all those who desire to practice medicine are compelled to undergo an examination such as the medical corps of the army and navy demand, we will hear nothing more of men going off for two months and coming back as physicians. We are not in the least afraid that such an examining board would prove hostile to Homœopathy, or those expecting to practice it. On the other hand, we believe that the time has come when all schools of medicine would gladly meet on the equal basis which a diploma granted under these circumstances would give.

It may be that the question of the establishment of a State Board of Health will come up before the legislature which will convene this winter. Should this be the case, our school ought to use the most earnest effort in securing the passage of such a bill. Nothing but dissensions or rivalry among ourselves as to who shall receive an appointment thereon, will prevent the

official recognition of our school in the formation of the board.

We wish to enter our protest against our present Registration Act. It has practically accomplished nothing, so far as our observation goes.

Respectfully submitted.

L. H. Willard, M.D.,
Hugh Pitcairn, M.D.,
for Committee on Legislation.

On motion, the report was accepted and referred, and the committee continued, with power to act. On request of Dr. Willard, Dr. Pitcairn was constituted chairman of the committee.

REPORT OF THE HISTORICAL COMMITTEE.

In the absence of Dr. J. C. Guernsey, Chairman of the Historical Committee, Dr. Caruthers presented the following papers, which were accepted and referred:

The History of Homœopathy in Bucks, Carbon, Luzerne and Wyoming counties, by A. R. Thomas, M.D.

The History of Homœopathy in Philadelphia, by R. J. McClatchey, M.D.

SUPPLEMENTARY HISTORY OF HOMŒOPATHY IN BUCKS, CARBON, LUZERNE AND WYOMING COUNTIES.

BY A. R. THOMAS, M.D., PHILADELPHIA.

In addition to the very full account of the practitioners in these counties, published in the Transactions of the World's Homœopathic Convention of 1876, we offer the following:

Bucks County.—Other practitioners of Homœopathy in this county are Drs. W. T. Bruce, Quakertown; Edward H. Doan, Newtown; E. L. Kirk, Morrisville; H. A. Shietz, Bristol; and Justin Turner, at Eddington.

Carbon County.—In 1863, Thomas C. Bunting, a graduate of the Homœopathic Medical College of Pennsylvania, class of 1855, settled at Mauch Chunk, he being the first regular practitioner of Homœopathy in that place. In 1869, he moved to East Mauch Chunk, where he remains. Dr. H. New-

miller is located at Summit Hill. Dr. Wm. F. Christ at Parryville, Dr. Reber at Lehighton and Dr. R. B. Kirby at Mauch Chunk.

Luzerne County.—Dr. D. H. Bradley settled in Wilkes-Barre in 1872, but about 1874 removed to Bryn Mawr, Montgomery county. He was followed the same year by J. A. Bullard, M.D., graduate of the Hahnemann Medical College of Philadelphia, class of 1872, who still remains, having acquired a large practice. Sarah J. Coe, M.D., a graduate of Ann Arbor, Michigan, located in the same place in 1879. Drs. E. B. Stephens and J. L. Capen were each for a year or two in Wilkes-Barre, since 1872, but both have since left. Dr. H. K. Leonard, graduate of the Hahnemann Medical College of Philadelphia, located in Plymouth in 1881. He had been preceded by J. W. Cooledge. Theodore M. Johnson, M.D., who graduated at the Hahnemann Medical College in 1878, located at Pittston in 1880, after having been located in Camden, N. J. Dr. Howard Long, now of Philaphia, had preceded him. Dr. W. G. Dietz is located at Hazelton, where Dr. L. A. Snyder, now in Philadelphia, was also at one time settled.

Wyoming County.—One of the earliest practitioners of Homœopathy in this county, was Dr. Gilbert Palen, now in Philadelphia. Frederick D. Brewster, a graduate of the New York Homœopathic Medical College in 1879, is located at Tunkhannock, and Dr. C. Campbell at Mehoopany.

HISTORY OF HOMŒOPATHY IN PHILADELPHIA.

BY R. J. McCLATCHEY, M.D., PHILADELPHIA.

I purpose to write the history of Homœopathy in Philadelphia, from its introduction in 1829, until what may be appropriately termed the present time. It is received as an historical fact, that the "first whisper" of Homœopathy that was heard upon the western continent, so far as is now known, was breathed by Dr. H. B. Gram, an American, by birth a citizen of Boston, who came to New York from Copenhagen in September 10th, 1825. This occurred several years prior to the

introduction of the new system into Philadelphia. Notwithstanding this, the history of Homœopathy in Philadelphia, its rise and progress, is full of interest to all members of the school, and especially so to the members of this Society. It is in large measure an epitome of the progress of the homœopathic school in our country. "The early history of all great movements is, for the most part, buried in obscurity. Their inception is generally too feeble to be deemed worthy of record; when they attain some vigor, the champions have generally occupation enough in defending and propagating their novelties, and when the time arrives that brings with it triumph and its attendant rest, the favorable moment has passed, and the materials for a history of the struggle are no longer accessible. It is then the duty and should be the care of every age to see to it, that all that is of interest to the cause of knowledge, and especially to the progress and development of humanity, be enduringly recorded for the benefit and information of its successors. Nor should it be hasty in deciding that this or that particular is too minute or too unimportant to be transmitted. Its office is simply that of *scribe;* the generation of *judges* is not yet born.*

Homœopathy was practically introduced into the city of Philadelphia in the year 1829, by Carl Ihm, M.D., a native of Frankfort-on-the-Main, and a graduate of the University of Wurzburg, in Bavaria. Dr. Ihm was doubtless a man of considerable acquirements, as is evinced by his inaugural thesis, presented and defended at the time of his graduation. It was written in Latin and was entitled "*Origo et Naturæ Lepræ.*" It is extremely probable, indeed, that Dr. Ihm came to this country and settled in Philadelphia to practice his profession at the instance of Mr. William Geisse, a wealthy German merchant of Front street, Philadelphia, a personal friend of Hahnemann, and who became the warm friend and supporter of Dr. Hering, who came to the city some years later. Dr. Ihm, for some reason, did not remain long in Philadelphia, leaving in the latter part of the year 1833.

In the year 1831, George H. Bute arrived in Philadelphia from Surinam, at which latter place he had been laboring as

* Dr. J. W. Metcalf, *N. A. Journal of Homœopathy*, vol. i, p. 7.

a missionary of the Moravian church. While engaged in this mission work, he had made the acquaintance of Dr. Constantine Hering, who was at that time likewise in Surinam engaged in practice, and in scientific investigations on behalf of the German government. From him Dr. Bute received a knowledge of the principles and practice of Homœopathy. Dr. Bute, therefore, soon after his arrival in Philadelphia, opened an office in Vine street, and established himself as a practitioner of the new healing art. At about that time, the Asiatic cholera prevailed as an epidemic in Philadelphia. To this dreaded malady Dr. Bute paid very particular attention, and the remarkable success attending his efforts drew great attention to the new doctrine and to his new methods, and soon led to his acquiring a good practice.

In 1832, these two practitioners, Drs. Bute and Ihm, were joined by a third, Dr. Chas. F. Matlack, a native of Philadelphia, and a graduate of the University of Pennsylvania, being the first of the alumni of that time-honored institution, so far as is known, to embrace the doctrines set forth by Hahnemann, although by no means the last. Dr. Matlack was a member of the Society of Friends, and by his early acceptance of and subsequent firm adherence to Homœopathy, foreshadowed the course taken by a large proportion of the members of that intelligent and influential body, both in this country and in England.

In January, 1833, and in consequence of the representations and solicitations of Dr. Bute, Constantine Hering, M.D., came to Philadelphia from Surinam, and gave powerful aid to the spread of the new medical doctrine. He opened an office in connection with Dr. Bute, the latter having already gained considerable reputation and business. Dr. Hering's knowledge of the English language being at this time very imperfect, Dr. Bute rendered him good service as an interpreter, as well as in other ways.

Even at this early period in the history of Homœopathy in Philadelphia, many of its firm adherents amongst the laity, were men of education, wealth and influence. Amongst these the name of William Geisse, before referred to, is deserving of mention.

Shortly after the arrival of Dr. Hering, viz., on April 10th, 1833, the physicians, Drs. Ihm, Bute, Matlack and Hering, together with several laymen, organized the "Hahnemannian Society," the object of which was to disseminate the homœopathic doctrines and exhibit the advantages of homœopathic treatment. In pursuance of this design Dr. Hering prepared an interesting address,* which was published in pamphlet form, and comprised thirty pages, an English translation of which was furnished by Dr. Matlack, and likewise published for distribution under the title of "A Cursive view of the Rise and Progress of Homœopathic Medicine." This was the first homœopathic society formed in the United States, a sister society consisting of physicians having been formed in New York city in the latter part of the year 1834. The publication of Dr. Hering's address was the second homœopathic publication issued in the United States; the first being a pamphlet entitled "The Characteristics of Homœopathy," by Hans Buch Gram, C.M.C., New York, 1825.

This address of Dr. Hering and its English translation being freely circulated and extensively noticed and quoted by the public press; by these means Homœopathy was fairly set before the people. The society likewise addressed a letter to Hahnemann informing him of its organization on the anniversary of his birth, and that it bore his name. Having done all this, as well as informing Hahnemann of the progress of the new doctrine in the new world, it seems to have done little else, and was shortly afterwards, in 1838, succeeded by a new society, from which laymen were excluded.

The efforts made in various ways by the friends of Homœopathy began about this time to direct considerable attention to the cause, and to excite considerable curiosity as to the new medical doctrines upon the part of physicians of the old school, which eventuated in the accession to the homœopathic ranks in 1835 of Drs. Jacob Jeanes, Jonas Green and Gideon Humphreys. It is not a little remarkable that Drs. Jeanes,

*Kurze Uebersicht der Homœopathische Heilkunst, ihrer allnahligen entstehung und fitzigen Nusbildung, von Constantine Hering, M.D., Philadelphia, Wesselhœft, 1833, pp. 30, pamphlet.

Green and Humphreys commenced the investigation of Homœopathy on the same day.

In 1836 Charles Neidhard came to Philadelphia, and Dr. G. S. F. Pfeiffer settled in Germantown. Drs. Jacob Lentz, Caleb Bentley Matthews, George Lingen and Richard Gardiner were likewise added to the homœopathic profession in Philadelphia, in the same year.

On April 16th, 1836, the Legislature of Pennsylvania passed a bill incorporating "The North American Academy of the Healing Art," which was invested with full power to exercise privileges "necessary for the education of medical practitioners," these "privileges" being granted for the term of twenty years.* This institution was located at Allentown, Lehigh county, Pa., two large and handsome buildings having been procured for its purposes. Dr. Hering was chosen President of the Academy, and on the opening of the first course of instruction, he moved to Allentown. It continued in active operation for about two years, when Dr. Hering returned to Philadelphia, and resumed practice. The establishment of an educational institution of the kind was, undoubtedly, premature, and, not meeting the hearty support of the friends of the cause anticipated by the Board of Directors, the enterprise was abandoned.

In 1837 Samuel Friedly, M.D., embraced Homœopathy, and G. S. F. Pfeiffer moved into the city from Germantown.

In 1838 the "Homœopathic Medical Society of Philadelphia" was formed, with a membership of physicians only, laymen being excluded. This organization was the successor of the original "Hahnemannian Society," previously referred to; and was the first regularly constituted homœopathic medical society in Philadelphia. (*See Societies.*) The original members were as follows: Jacob Jeanes, M.D.; Charles F. Matlack, M.D.; Charles Neidhard, M.D.; Jacob Lentz, M.D.; Caleb Bentley Matthews, M.D.; Jonas Green, M.D.; Gideon Humphreys, M.D.; George Lingen, M.D.; Samuel Friedly, M.D.; G. S. F. Pfeiffer, M.D.; Matthew Anderson, M.D.; and Caspar Schaeffer, M.D. Some of these, however, did not take much interest in the organization, and but seldom attended the meetings. One

*See Pamphlet Laws of Pennsylvania, Session of 1835-36, Act No. 180, p. 676.

of the first acts of this society, after its organization, was the preparation and publication of a chart of directions for the diet and regimen of the sick during homœopathic treatment. This "Diet Card" is still extant and in use by some of the older members of the profession.

In March, 1839, Walter Williamson, M.D., moved to Philadelphia, from Delaware county, Pa., (where he had been engaged in the practice of Homœopathy since 1836); and James Kitchen, M.D., with several others, joined the homœopathic ranks. In this year (1839) the medical society was reorganized, (*See Societies.*) with the addition of several new members; but the door of admission was opened so widely that any one claiming to practice Homœopathy, whether a graduated physician or not, could obtrude himself into membership. This resulted in a retardation rather than an advancement of the interests of the association; for the properly qualified members would not descend from their high and hard-earned positions to the level of the pretenders, nor were they willing to elevate the pretenders to the platform upon which they themselves stood, without the pretenders were subjected to a regular course of study.

In 1840 the ranks of the homœopathic physicians in Philadelphia were greatly strengthened by the addition of a number of excellent and valuable recruits. Among these were: William S. Helmuth, M.D.; Coburn Whitehead, M.D.; Bernard Berens, M.D., and Samuel R. Dubs, M.D.

In 1841 Joseph Berens, M.D., became a member of the homœopathic profession. Some of these gentlemen became members of the Homœopathic Medical Society. At the same time the fraternity was greatly strengthened and encouraged, not only by the professional accessions to their ranks, but by the rapidly growing favor with which homœopathic therapeutics was received by the most intelligent portion of the community, in consequence of the many splendid cures which were constantly being made. And this was true, not only of Philadelphia alone, but of the adjoining country as well. A number of well established physicians in the adjoining counties, and in more distant districts, had turned their attention to Homœopathy, and adopted its principles and practice; the

physicians of Northampton and Lehigh counties, in particular, having established quite a homœopathic community.

It can readily be supposed that the influence that was being acquired in the community by homœopathic practitioners now began to have a decided effect upon the allopathic school. The mere fact of Homœopathy being *new* was sufficient of itself to excite the bitterest wrath and opposition (as is usual in similar cases) of the magnates of allopathy and of their schools; but the claims of the new practice to superior success in the treatment of disease—these claims being substantiated by the numerous cures in cases theretofore pronounced incurable—added fury to the opposition and increased weight to the obloquy which was attempted to be heaped upon the heads of the followers of Hahnemann.

About this time a serious want began to be felt of means to properly educate men for the practice of Homœopathy. While our students were not excluded from old school colleges, they were marked men, and their homœopathic proclivities were regarded as a reproach to them. At the same time homœopathic students lost valuable time, by being thus educated, in the acquisition of knowledge that could not fail of being worse than useless to them. In 1844, on the 10th day of April, being the anniversary of the birth of Hahnemann, in consequence of an invitation extended by the "New York Homœopathic Physicians' Society" to all the known homœopathic physicians in the United States, several of the physicians of Philadelphia met their colleagues in the good cause from different sections of the Union, in convention, in the city of New York, and organized the *American Institute of Homœopathy*, with Constantine Hering, M.D., as its first President; the object of the new organization being clearly set forth in its constitution as "the improvement of the science of medicine." It was expected that something would be done by this body looking to the providing of means for educating young men for the practice of Homœopathy, and the establishment of a standard of credentials for those already engaged in practice. Such matters, however, being under the control of the legislatures of the several States, the project of procuring a National recognition was abandoned; but a certificate of membership in the Amer-

ican Institute of Homœopathy was agreed upon, which has been regarded ever since as an evidence of good standing in the profession.

The American Institute of Homœopathy honored Philadelphia by appointing the gentlemen to constitute the "Central Bureau" exclusively from her physicians. Drs. Hering, Jeanes, Neidhard, Williamson and Kitchen constituted that bureau for several years. Additions to the number of homœopathic physicians in Philadelphia were now made yearly. William N. Gardiner, M.D., joined the ranks in 1843; Francis Sims, M.D., and William P. Esrey, M.D., in 1844, and Henry N. Guernsey, M.D., (who located in Frankfort) in 1845.

On the 6th of June, 1846, an association "for the promotion of medical science" was formed and made tributary to the American Institute under the name of the "*Philadelphia Branch of the American Institute of Homœopathy.*"

During all these years a number of the homœopathic physicians of the city were engaged in the proving of medicines, chiefly under the direction of the "Central Bureau" of the American Institute. In 1846 the third annual meeting of the Institute was held in Philadelphia, Samuel R. Kirby, M.D., of New York, being the presiding officer; and in the same year a duodecimo volume of "Provings" was published by Charles L. Rademacher, homœopathic pharmaceutist and publisher, of Philadelphia, for the use of the members of the Institute.

At the meetings of the "Central Bureau" of the Institute (composed of Philadelphia physicians) the question of establishing a homœopathic college, was frequently discussed, until finally, at a meeting held in February, 1848, it was resolved by the members present, Drs. Hering, Jeanes and Williamson, to petition the legislature of Pennsylvania, then in session, for a charter. The act of incorporation passed both branches of the legislature and was approved by the Governor, April 8th, 1848. The college was opened for the reception of students, and the first course of instruction entered upon on the 17th day of October, 1848.

In September, 1848, the *Philadelphia Homœopathic Dispensary* attached to the college was instituted, and has been in

successful operation ever since that date, doing an incalculable amount of good.

In 1850, a charter was obtained from the Court of Common Pleas for the County of Philadelphia for the *Homœopathic Hospital of Pennsylvania.* A large building on Chestnut street, near the Schuylkill, was rented for hospital purposes, and the institution was established in good working order soon afterward. A fair for the benefit of the hospital was held at the Chinese Museum in the fall of 1853, at which the sum of $2,800 was realized. The institution finally succumbed, owing to a want of attention on the part of the physicians and surgeons.

On July 7th, 1852, the *Philadelphia Homœopathic Medical Society* was organized, with Samuel R. Dubs, M.D., as president, and William Ashton Reed, M.D., as secretary. The last meeting of this society was held in February, 1854.

On the 27th of August, 1853, the *American Prover's Union* was formed at the residence of Dr. Hering; the chief object of the organization being the re-proving of drugs, although several valuable additions to the materia medica were made through its instrumentality. Dr. Hering was elected president. This society made several reports to the American Institute of Homœopathy, and published a pamphlet in 1856 containing provings of ferrum metallicum and mercurius jodatus ruber. It continued in active operation for several years, but finally met the fate that had attended its predecessors.

On the 10th day of April, 1855, the centennial anniversary of the birthday of Samuel Hahnemann, was celebrated with great *eclat* in the Musical Fund Hall in Philadelphia, at which addresses were made by Drs. C. Hering, of Philadelphia, Edward Bayard, of New York, B. F. Joslin, of New York, and J. P. Dake, of Pittsburgh.

On the 10th of February, 1859, the *Homœopathic Medical Society of the City of Philadelphia* was formed, with Richard Gardiner, M.D., as president, and Adolphus H. Ashton, M.D., as secretary. This society continued to meet regularly until September, 1860, when, owing to an unfortunate quarrel between certain of its members, it was broken up.

On the 29th of September, 1859, a general meeting of the

homœopathic physicians of Philadelphia was held in the Assembly buildings, to deliberate on the means of introducing Homœopathy into the charitable institutions and prisons of the city; of which meeting Walter Williamson, M.D., was president, and Silas S. Brooks, M.D., secretary. At a subsequent meeting, held November 3d, 1869, an address to the public was adopted and subsequently published. In this address it was stated that at that time there were from seventy to eighty homœopathic physicians in Philadelphia, and that their patients numbered upwards of one hundred thousand of the most intelligent and respectable members of the community. The action of this Convention eventuated in nothing further than the publication of the address alluded to.

In 1860 the American Institute of Homœopathy again honored Philadelphia by holding its seventeenth annual session in that city. Dr. E. C. Witherell presided at the meeting, which was held in the college building on Filbert street, and was largely attended. F. R. McManus, M.D., of Baltimore, delivered the annual address at Concert Hall.

In 1862 the Board of Managers of the Homœopathic Medical College of Pennsylvania fitted up, for hospital purposes, suitable rooms in a building belonging to the corporation, for the reception of sick and wounded soldiers. On the 9th of September, 1862, a Ladies' Aid Association of the Homœopathic Hospital was organized, through the instrumentality of which, mainly, a number of sick and wounded soldiers, discharged from United State hospitals, were enabled to avail themselves of the beneficence of homœopathic treatment.

In 1866 the want of a medical society again began to be felt by the profession, and accordingly a convention of homœopathic physicians was called, which resulted in the formation of the present *Homœopathic Medical Society of the county of Philadelphia;* with Richard Gardiner, M.D., as president, and Robert J. McClatchey, M.D., as secretary. This society has a large membership, and gives every evidence of energy and long life.

In 1867 the *Homœopathic Medical Society of the State of Pennsylvania*, which had been organized the year previous in Pittsburgh, held its second annual meeting in Philadelphia, under

the presidency of Walter Williamson, M.D. The meeting was largely attended, and a number of interesting and valuable papers were read thereat.

In 1867 the Hahnemann Medical College of Philadelphia was organized, being the second Homœopathic Medical College established in Philadelphia. The faculty of the new institution was composed, mainly, of former members of the faculty of the older college, and the setting up of a new college was the result of a want of harmony between individuals interested in the matter of medical education.

In 1869, by the joint action of the authorities of the two colleges, an amicable arrangement was made, and a merger effected—the faculty of the Homœopathic Medical College of Pennsylvania retiring, and the faculty of the Hahnemann Medical College continuing; the institution being known by the name of the Hahnemann Medical College of Philadelphia, in accordance with the provision of the Act of Assembly by which the merger was effected.

In this year (1869) a fair was held at Horticultural Hall for the purpose of raising a fund for building and endowing a large general homœopathic hospital in Philadelphia. Owing to the active co-operation of a large number of the physicians of the city, and the indefatigable efforts of the many ladies and gentlemen interested in the enterprise, the fair, which continued during a period of two weeks, was a great success—the sum of nearly seventeen thousand dollars having been realized.

In 1870 the money thus secured was invested by the Trustees of the hospital—who are also Trustees of the college—in the purchase of the college property, and the erection on Cuthbert street, in the rear of the college building, of a hospital for purposes of clinical instruction in medicine and surgery. The building contains a number of public and private wards, together with all the appliances of a well furnished modern hospital.

During the years extending from 1840 to 1870 the number of homœopathic physicians in Philadelphia steadily increased, particularly after the establishment of the college in 1848. During the past eight or nine years cards have been published from time to time by our enterprising pharmacists, showing

the exact number of practitioners in a given year. During all these years, too, the progress of Homœopathy was otherwise marked than by the increase in the number of its practitioners. The establishment of dispensaries in various quarters of the city, many of them the result of individual enterprise, served to spread a knowledge of the true healing art amongst the poorer classes, while securing for them its best results; a number of public charitable institutions were placed under homœopathic control, and soon exhibited the benefit derived from the change in the medical treatment of their inmates; medical journals were established, and other methods taken to secure the progress and prosperity of the homœopathic system of therapeutics. It may with safety be claimed that in no place in the world is Homœopathy more firmly rooted in the affections and understanding of the people than in Philadelphia.

Dr. J. C. Burgher, Chairman of the Delegation to the American Institute of Homœopathy, reported that the meeting held in Indianapolis in June last, while not so largely attended as that of the year before, was one of great interest.

The Corresponding Secretary presented the following report:

REPORT OF BUREAU OF ORGANIZATION, REGISTRATION AND STATISTICS.

To the Homœopathic Medical Society of Pennsylvania:

In presenting this, the first report of the Bureau of Organization, Registration and Statistics, we are glad to be able to offer you some information in regard to every homœopathic society and every institution under homœopathic control in the State.

State Society.—This organization has an active membership numbering one hundred and sixty-six, with fifteen honorary and corresponding members. Of this number, twenty-five were added at the last meeting of the Society. This increase during one year is very gratifying, but when we look

at the number of homœopathic physicians in the State—seven hundred, from the latest reports—the number seems far too small, and indicates a great degree of lukewarmness on the part of the membership. Our Society ought to number at least five hundred members, and by a little earnest work on the part of each of us, it could reach that number within two years. During the year just closed there has been but one death.

County Societies.—There are seven county or district societies, the latter comprising representatives from two or more counties. The meetings of these organizations are held monthly, quarterly or semi-annually.

Local Societies and Clubs.—Of societies of this class, whose range is more limited than the preceding, we have eight. Their meetings are held weekly, bi-weekly or monthly. The work done by these societies is rather more practical, being confined chiefly to matters of a clinical nature.

Miscellaneous Organizations.—There are, besides those already classified, the following organizations: a Library and Reading Room Association, a Pharmaceutical Association, a Homœopathic Publishing Society, and an Anatomical Society.

Summary.—Of the whole number of societies, excluding the State organization, we find there is an aggregate membership of three hundred and forty-four. Of this number eighty-four were admitted during the year, and three have died. Several of these organizations are of recent origin, five of them, the Society of the Twenty-third Ward of Philadelphia, the Library and Reading Room, and the Societies of West Philadelphia, of Crawford county and of Northern Pennsylvania, having been organized since the last meeting of the State Society.

Journals.—Two journals are published within our boundaries: one, the well-known *Hahnemannian Monthly*, and the other, the *Homœopathic Physician*.

Our **College**, of which we may well be proud, exhibits an army of one thousand four hundred and twenty-five alumni, whose numbers were recruited, at the last Commencement, by the graduation of fifty-seven out of a class of one hundred and seventy-five students. Let us see to it that the pioneer hom-

œopathic college shall receive our hearty support, and by this means enable it to take the front rank among our educational institutions.

Our **Hospitals** show a vast amount of work done. In eight hospitals, with two hundred and seventy-five beds, there have been treated during the year nine hundred and fifty-one patients. Of this number six hundred and eighty-seven have been discharged cured, one hundred and fifty-two were relieved, twenty-eight were removed by friends or discharged unrelieved, and fifty-two died, a death rate of about seven and one-half per cent, a remarkably low rate when we consider that a certain number of the deaths were from phthisis or other incurable complaints, and from traumatic injuries, and also, that one institution, returning a large share of the deaths, is one in which the inmates must be over sixty years of age before they can be admitted to its charities.

The **Dispensaries** connected with four of the hospitals have treated about twenty-thousand five hundred patients, and have issued, during the year, forty-one thousand five hundred and eighty-one prescriptions.

We have received from all the organizations above mentioned brief reports containing the items given above, which are appended hereto, and also the list of members in each society, as far as obtained.

Respectfully submitted in behalf of the bureau.

R. E. Caruthers, M.D.,
Chairman.

HOMŒOPATHIC MEDICAL SOCIETIES IN PENNSYLVANIA.

Name of Society.	When Organized.	When Incorporated.	Meetings.	1882. Annual Meeting.	President.	Secretary.	Number of Members.	Admitted last Year.	Withdrawn last Year.	Died last Year.	Annual Dues.	Publications last Year.
					STATE SOCIETY.							
Homœopathic Medical Society of Penn'a.	1866	Not.	Ann.	Altoona, Pa., Sept. 5–7.	J. C. Morgan, M.D., Philadelphia.	R. E. Carnthers, M.D., Allegheny City.	166	25	4	1	$3 00	Transactions.
					COUNTY OR DISTRICT SOCIETIES.							
Hom. Medical Society of County of Phila.	1866	Not.	Month	Philadelphia, April.	W. B. Trites, M.D., Manayunk.	C. Mohr, M.D., 555 N. 16th St., Philadelphia.	123	14	...	1	$1 00	Hom. Registry and Directory. Proceedings of Society, 1881, 1882.
Hom. Medical Society of Allegheny County.	1864	Not.	Month	Pittsburgh, December.	J. F. Cooper, M.D., Allegheny City.	T. M. Strong, M.D., Allegheny City.	43	...	...	...	1 00	Proceedings in Journals.
Hom. Medical Society of Chester, Delaware and Montgomery Counties.	1858	Not.	Quart.	October.	J. B. Wood, M.D., West Chester.	L. Hoopes, M.D., Downingtown.	26	...	...	1	1 00	
Lehigh Valley Homœopathic Med. Society.	1881	Not.	Bi-month.	April.	E. D. Doolittle, M.D., Easton.	F. J. Slough, M.D., Allentown.	17	15	...	...	.....	
Hom. Medical Society of Northern Penn'a.	1882	Not.	Bi-month.	Pittston, June.	J. A. Bullard, M.D., Wilkes-Barre.	Theo. M. Johnson, M.D. West Pittston.	15	15	...	...	2 00	
Hom. Medical Society of Crawford County.	1882	Not.	Quart.	Meadville, July.	J. L. Dunn, M.D., Titusville.	E. C. Parsons, M.D., Meadville.	14	14	...	...	.....	
Hom. Medical Society of Western Penn'a.	1881	Not.	Semi-ann.	August.	W. W. Smith, M.D., Kittanning.	W. W. Wolfe, M.D., Freeport.	6	6	...	...	50	
					LOCAL SOCIETIES AND CLUBS.							
Hom. Medical Society of 23d Ward, Phil'a.	1881	Not.	Month	October.	Newton May, M.D., Holmesburg, Phil'a.	Richard C. Allen, M.D. Frankford, Phil'a.	16	1	...	...	.....	

Hom. Medical Society of Germantown.	1879	Not	Month		W. H. Malin, M.D.	W. H. Tomlinson, M.D. Germantown.	10	3	...	1	.....	
Hom. Medical Society of West Philadelphia.	1882	Not.	Month	June.	J. K. Lee, M.D., Philadelphia.	C. R. Norton, M.D., 532 N. 40th St., Phil'a.	11	11	...	...	$1 00	
Philadelphia Clinical Society.	1880	Not.	Bi-weekly		C. M. Thomas, M.D., Philadelphia.	Wm. H. Bigler, M.D., 118 N. 12th St., Phil'a.	10	1	...	...	1 00	
Lippe Society of Philadelphia.	1880	Not.	Bi-weekly			W. M. James, M.D., 123 N. 21st St., Phil'a.	6	...	...	...	.....	
Hahnemann Club of Philadelphia.	1872	Not.	Month	April 10.	R. J. McClatchey, M.D. Philadelphia.	W. H. H. Neville, M.D. 1901 Fairmount av, Ph.	11	...	...	...	.....	Hahnemannian Monthly.
Bœnninghausen Club of Philadelphia.	1877	Not.	Month		Geo. W. Smith, M.D., Philadelphia.	D. Macfarlan, M.D., 3935 Market St., Phil'a.	10	...	...	...	6 00	
Hering Club.	1880	Not.	Month	December.	E. S. Sharpless, M.D., Philadelphia.	F. O. Gross, M.D., 1235 N. 4th St., Phil'a.	16	3	...	...	50	
					MISCELLANEOUS.							
Allegheny County Anatomical Society.	1874	1875	Month	Pittsburgh, October.	J. H. McClelland, M.D. Pittsburgh.	W. J. Martin, M.D., 1708 Carson St., Pgh.	20	1	...	...	6 00	
American Homœopathic Publishing Society.	1877	1878	Month Ann.	Philadelphia, November.	A. R. Thomas, M.D., Philadelphia.	C. Mohr, M.D., 555 N. 16th St., Phil'a.	178	...	...	...	10 00	
Hom. Pharmaceutical Association of Penn'a.	1881	1882	Ann.	Altoona, September.	F. E. Boericke, M.D., Philadelphia.	F. J. Slough, M.D., Allentown.	10	...	...	...	.....	
Hom. Library and Reading Room Association.	1881	Not.			A. R. Thomas, M.D., Philadelphia.	W. H. Bigler, M.D., 118 N. 12th St., Phil'a.	112	...	...	...	2 00	

HOMŒOPATHIC MEDICAL COLLEGE.

Name.	When Incorporated.	When opened to Students.	Name and Address of Dean.	Length of Yearly Course and time it Commences.	Number of Courses Required.	Number of Students the past Year.	Number of Graduates last Commence'nt.	Number of Alumni.	Number of Faculty.	Number of Professors.	Number of Lecturers.
Hahnemann Medical College of Philadelphia.	1848	1848	A. R. Thomas, M.D., 1733 Chestnut St., Phil'a.	Five Months. Oct. 1st, 1882.	2 or 3.	175	57	1425	19	9	10

HOMŒOPATHIC JOURNALS IN PENNSYLVANIA.

Name of Journal.	Name of Publisher.	Name of Editor.	When Established.	How often Published.	Form.	Yearly Number of Pages.	Subscription Price.
Hahnemannian Monthly.	Hahnemann Club of Philadelphia.	P. Dudley, M.D., E. A. Farrington, M.D.	1866	Monthly.	Octavo.	768	$3 00
Homœopathic Physician.	E. J. Lee, M.D.	E. J. Lee, M.D.	1881	Monthly.	Octavo.	576	2 00

HOMŒOPATHIC HOSPITALS IN PENNSYLVANIA.

Name.	Where Located.	When Incorporated.	When opened to Patients.	Name of Resident Physician or Superintendent.	Number of Beds.	Number of Patients treated last Year.	Number Cured.	Number Relieved.	Number not Relieved.	Number Died.	Source of Income.
Homœopathic Hospital of Philadelphia.	1116 and 1118 Cuthbert St., Philadelphia.	1868	1871	W. T. Maguire, M.D., O. S. Haines, M.D.	40	367	321	37	2	7	Contributions.
Homœopathic Hospital of Pittsburgh.	146 Second Avenue, Pittsburgh.	1866	1866	Mrs. S. W. Taylor.	40	302	201	52	16	23	Contributions.
Children's Homœopathic Hospital of Phil'a.	8th and Poplar Streets, Philadelphia.	1877	1877	J. T. Ridge, M.D.	20	63	25	20	...	3	Contributions and board of patients.
Pennsylvania Homœopathic Hospital for Children.	43d St. and Oregon Ave., Philadelphia.	1880	1877	E. E. Davis, M.D.	25	64	28	7	6	5	Contributions.
Infirmary of Benedictine Sisters.	Erie.	Not.	1865	Edward Cranch, M.D.	10	29	16	11	...	2	Contributions and earnings of Sisters.
Hamot Hospital.	Erie.	1881	1881	Miss J. H. Sutliffe.	25	4	3	1	...	...	Contributions.
Christian Home for Women.	Locust Street, Allegheny.	1868	1868	.....	25	22	4	14	3	1	Contributions.
Little Sisters of the Poor, Home for the Aged Poor.	Washington Street, Allegheny.	.....	1872	Rev. Mother Lambertine.	90	95	84	...	...	11	Contributions.

HOMŒOPATHIC DISPENSARIES IN PENNSYLVANIA.

Name.	Where Located.	When Incorporated.	When opened to Patients.	Name of Secretary or Executive Officer.	Number of Patients last Year.	Number of Prescriptions.	Cost of Conducting last Year.	Remarks.
Dispensary of the Homœopathic Hospital of Philadelphia.	1105 Filbert Street, Philadelphia.	1874	1848 1871	J. E. James, M.D.	8,785	15,949	$300 00	
Dispensary of the Homœopathic Hospital of Pittsburgh.	154 Second Avenue, Pittsburgh.	1866	1866	Mrs. S. W. Taylor.	.....	10,819	.....	Supported by Hospital Association.
Dispensary of the Children's Homœopathic Hospital of Phil'a.	8th and Poplar Streets, Philadelphia.	1877	1877	M. S. Williamson, M.D.	3,802	10,607	.....	Supported by Hospital Association.
Dispensary of the Pennsylvania Hom. Hospital for Children.	43d St. and Oregon Ave., Philadelphia.	1880	1877	C. R. Norton, M.D.	2,514	4,206	40 00	

LIST OF MEMBERS OF SOCIETIES.

Philadelphia County.

Allen, John V.
Allen, Richard C.
Ashton, A. H.
Baker, Alfred E.
Baker, C. H.
Banks, J. O. H.
Bartlett, C.
Betts, B. F.
Bigler, W. H.
Birch, J. P.
Branson, Mary.
Brooks, C. M.
Brown, Samuel.
Brown, S. Hastings.
Burnham, N. C.
Caldwell, F. E.
Castle, D. M.
Conover, T. F.
Cresson, C. C.
Crumbaugh, J. W.
Davis, W. B.
Dudley, P.
Dunning, T. S.
Erwein, F.
Farrington, E. A.
Fellger, A.
Fornias, E.
French, Harriet S.
Gardiner, G. W.
Garvin, J. J.
Gause, P. O. B.
Gessler, C. W.
Goodno, C. F.
Goodno, W. C.
Gramm, E. M.
Gramm, G. E.
Griffith, J. J.
Griffith, Silas.
Gross, F. O.
Groth, H. H.
Guernsey, H. N.
Guernsey, J. C.
Guernsey, W. J.
Gumpert, B. B.
Hamilton, W. C.
Hancock, J.
Hosfeld, G.
Ingersoll, W. K.
Jackson, E. B.
Jackson, Lora C.
James, B. W.
James, J. E.
Johnson, Maria N.
Keim, W. H.
Kimball, H. A.
Kirk, G. J. W.
Knerr, C. B.
Knerr, L. J.
Kniffen, J. B.
Koch, A. W.
Korndœrfer, A.
Lang, Eliza H.
Lee, E. J.
Lee, J. K.
Lewis, J. C.
Lippe, A.
Macfarlan, M.
Manson, C. F.
Marshall, Anna M.
Marter, G. W.
Martin, H. N.
McClatchey, R. J.
McClelland, J. H.
McLeod, G. I.
Middleton, C. S.
Mitchell, J, N.
Mohr, C.
Morgan, J. C.
Mount, F. D.
Neidhard, C.
Neville, W. H. H.
Norton, C. R.
Parke, G. T.
Parker, G. W.
Pierce, W. A. D.
Powell, Jr., W. C.
Price, F. T.
Raue, C. G.
Reading, J. H.
Reeves, J. M.
Rembaugh, A. C.
Sargent, R.
Sartain, Harriet J.
Sharkey, W. P.
Shaw, A. R.
Shellenberger, C. N.
Shinkle, H. J.
Simmer, E.
Smedley, I. G.
Smith, E. M.
Smith, L. A.
Snyder, D. L.
Stambach, H. L.
Straube, R.
Strong, J. W.
Thomas, A. R.
Thomas, C. M.
Thomas, J. S.
Tindall, Van R.
Tomlinson, W. H.
Toothaker, C. E.
Trinkle, S. M.
Trites, W. B.
Van Lennep, W. B.
Walker, M. M.
Wandell, J.
Weaver, C.
Webb, L. W.
Wilcox, H. T.
Williams, T. C.
Williamson, M. S.
Wrisley, J. A.
Young, J. H.

Allegheny County.

Anderson, E. O., Braddocks.
Bingaman, C. F., Pittsburgh.
Boardman, W. H., "
Borland, W. C., "
Burgher, J. C., "
Caruthers, R. E., Allegheny.
Chantler, I. B., Sewickley.
Chapman, M. J., Pittsburgh.
Childs, W. R., "
Cooper, J., Allegheny.
Cooper, J. F., "
Cowley, D., Pittsburgh.
Crawford, J. S., Greensburg.
Dean, E. W., Braddocks.
Dinsmore, S. W. S., Sharpsburg.
Edmundson, W. F., Pittsburgh.
Ferson, J. L., "
Fulton, H. W., "
Grimes, T. H., Sewickley.
Herron, C. D., Pittsburgh.
Hofmann, C. H., "
Hofmann, H. H., "
Kerns, W. H. H., McKeesport.
McClelland, J. B., Pittsburgh.
McClelland, J. H., "
McIntire, R. L., Allegheny.
Martin, W. J., Pittsburgh.
Miller, H. C., Allegheny.
Miller, Z. T., Pittsburgh.
Pitcairn, R. V., Allegheny.
Putnam, T. J., Pittsburgh.
Ramage, R. Y., Mansfield Valley.
Rankin, J. S., Pittsburgh.
Rinehart, C. C., "
Robson, J. W., "
Rousseau, L. M., "
Scott, S. C., "
Seip, C. P., "
Shannon, O. R., Allegheny.
Shannon, S. F., "
Strong, T. M., "
Willard, L. H., "
Winslow, W. H., Pittsburgh.

Chester, Delaware and Montgomery Counties.

Adams, T. L., Berwyn.
Brooks, C. M., Philadelphia.
Crowther, I., Upland.
Hamer, J. H., Collegeville.
Hawley, L. B., Phœnixville.
Hoopes, L., Downingtown.
Johnson, I. D., Kennett Square.
Jones, Joseph E., West Chester.
Long, Samuel, New Brunswick, N. J.
Mercer, R. P., Chester.
Mullin, S. A., West Chester.
Parker, T. E., Parkerville.
Perkins, C. W., Chester.
Pratt, T., Media.
Rossiter, E. B., Pottstown.
Smedley, R. C., West Chester.
Starr, S., Chester.
Thatcher, J. W., Philadelphia.
Tomlinson, W. H., Germantown.
Urie, W. T., Chester.
Way, J. H., West Chester.
Williams, A., Phœnixville.
Wood, J. B., West Chester.

Lehigh Valley.

Becker, J. G., Bethlehem.
Bunting, T. C., Mauch Chunk.
Detwiller, H., Easton.
Detwiller, J. J., Easton.
Detwiller, J. W., Bethlehem.
Doolittle, E. D., Easton.
Hassler, W. A., Allentown.
Helfrich, C., Fogelsville.
Helfrich, J. H., Fogelsville.
Helfrich, J. H., Allentown.
Heller, H. D., Allentown.
Holben, M., Slatington.
Jacobson, E. H., Bethlehem.
Kirby, R. B., Mauch Chunk.
Slough, F. J., Allentown.
Slough, W. C. J., Emaus.
Yoder, D., Catasauqua.

Northern Pennsylvania.

Arthur, Charles, Scranton.
Baldwin, H. D., Montrose.
Brewster, F. D., Tunkhannock.
Brooks, S. A., New Milford.
Bullard, J. A., Wilkes-Barre.
Campbell, S. A., West Pittston.
Coe, Sarah J., Wilkes-Barre.
Cooledge, J. N., Carbondale.
Dietz., W. G., Hazleton.
Dreher, , Hazleton.
Dunnell, H. N., Scranton.
Evans, C. E., Providence.
Johnson, T. M., West Pittston.
Leonard, H. K., Plymouth.
Ross, S. C., Scranton.
Vail, J. D., Montrose.
Waters, Carey G., Scranton.

Crawford County.

Dunn, J. L., Titusville.
Frazier, J. B., Conneautville.
Heath, L. R., Spartansburg.
Morrow, J. O., Evansburg.
Parsons, Anson, Springboro'.
Parsons, E. C., Meadville.
Pond, J. N., Meadville.
Rose, Susan F., Meadville.
Smith, Byron, Townville.
Smith, E. B., Townville.
Stoneroad, J. D., Meadville.
Sellew, S. W., Cambridgeboro.

Western Pennsylvania.

Barnaby, A. M., Red Bank Furnace.
Cleeland, J. S., Freeport.
Duff, P. S., Great Belt.
Leake, E. N., Butler.
Smith, W. W., Kittanning.
Wolfe, W. W., Freeport.

Twenty-Third Ward, Philadelphia.

Allen, J. V., Frankford.
Allen, R. C., Frankford.
Bartholomew, G. R., Frankford.
Cornelius, R. W. B., Holmesburg.
Jerman, N. T., Holmesburg.
Lewis, J. C., Frankford.
Lewis, R., Frankford.
May, N., Holmesburg.
Powell, W. C., Bustleton.
Pratt, H. C., White Hall.
Reading, H. R., Somerton.
Reading, J. R., Somerton.
Reynolds, H., Bridesburg.
Sheetz, H. A., Bristol, Bucks County.
Umstead, D. B., Tacony.
Weaver, C., Fox-Chase.

Germantown.

Homer, Horace.
Karsner, D.
Malin John.
Malin, W. H.
Mansfield, J. R.
Mullin, W. P.
Tomlinson, W. H.
Trites, W. B.
Van Artsdalen, C.
Walker, M. M.

Philadelphia Clinical.

Bigler, W. H.
Goodno, C. F.
Goodno, W. C.
Ingersoll, W. K.
Knerr, C. B.
Mitchell, J. N.
Mohr, C.
Norton, C. R.
Thomas, C. M.
Trites, W. B.

Lippe.

Clark, G. H.
Fellger, A.
Guernsey, W. J.
James, W. M.
Lee, E. J.
Lippe, A.

Hahnemann Club.

Ashton, A. H.
Betts, B. F.
Dudley, P.
Farrington, E. A.
James, B. W.
James, J. E.
Korndœrfer, A.
Middleton, C. S.
McClatchey, R. J.
Neville, W. H. H.
Walker, M. M.

Boenninghausen Club.

Dunning, T. S.
Hosfeld, George.
Macfarlan, D.
Parke, G. T.
Parker, G. W.
Sheppard, H. C.
Smiley, L. F.
Smith, G. W.
Trinkle, S. M.
Zerns, W. M.

Hering Club.

Baker, A. E.
Baldwin, A. M.
Caldwell, F.
Fornias, E.
Graham, E. M.
Griffith, L. B.
Gross, F. O.
Kehrer, A. B.
Kemble, J.
Knerr, L. J.
MacDonald, J.
McGill, E. K.
Pitcairn, Hugh.
Sharpless, E. S.
Simon, S. H.
Van Baun, W. W.

Allegheny County Anatomical.

Bingaman, C. F.
Burgher, J. C.
Chapman, M. J.
Childs, W. R.
Cooper, John.
Cooper, J. F.
Edmundson, W. F.
Hofmann, C. H.
King, W. B.
Martin, W. J.
McClelland, J. B.
McClelland, J. H.
Miller, Z. T.
Rinehart, C. C.
Robson, J. W.
Scott, S. C.
Seip, C. P.
Shannon, S. F.
Willard, L. H.
Winslow, W. H.

Dr. W. R. Childs, the Necrologist, presented the following:

REPORT OF THE NECROLOGIST.

We have lost but one of our number since last we met, but this loss we all feel to be a heavy one.

Dr. Thomas Moore was born July 2d, 1827, in Philadelphia. Here he received his education, graduating at the High School. For several years he served an apprenticeship in a drug and chemical house, then attended a full course of lectures at the College of Pharmacy. In 1845 he matriculated in the Medical Department of the University of Pennsylvania, and graduated in 1848. He was Physician to the Northern Dispensary, and one of the out-door physicians of the Guardians of the Poor. In 1852 Dr. Moore married Miss Madaline V. Taws, daughter of Lewis Taws, Esq., a leading mechanical engineer of his native city. Soon after his marriage he was induced to investigate Homœopathy, and became a convert to the same. Later he was appointed Surgeon to the Northern Home for Friendless Children. In 1857 he was elected Professor of Anatomy in the Homœopathic Medical College of Pennsylvania, which chair he held for two years. Resigning this position in 1859, he was appointed to the Chair of Obstetrics and Diseases of Women and Children in the same institution.

In 1861 Dr. Moore removed to Germantown, and then severed his connection with the college. In 1860 he became a member of the American Institute of Homœopathy. In 1870 he joined this Society. In 1873 he delivered the annual address to the Society in Harrisburg. In 1877 he read a paper on 'Dietetics in Relation to Infants and Young Children.' He was also a contributor to our medical journals.

Dr. Moore was a man esteemed, respected and honored by all who knew him. His death was sudden, and took place at the house of one of his patients, whom he was visiting, on March 25th, 1882. Cause, internal hæmorrhage from rupture of the heart.

To the wife and four children who survive him, this Society begs leave to offer its sympathy and condolence in their bereavement. Of him it may well be said, "he died in the harness."

The Board of Censors, during the sessions of the Society, reported favorably upon the following applications for membership, and the applicants were elected:

Boyer, Francis W., M.D., Pottsville,	Hahn. Med. Coll. of Phila.,	1869.
Cranch, Edward, M.D., Erie,	New York Hom. Med. Coll.,	1875.
Dean, E. W., M.D., Braddocks,	Hahn. Med. Coll. of Phila.,	1875.
Du Four, W. M., M.D., Williamsport,	Hahn. Med. Coll. of Phila.,	1880.
Evans, H. J., M.D., Tyrone,	Hahn. Med. Coll. of Phila.,	1881.
Hofmann, C. H., M.D., Pittsburgh,	New York Hom. Med. Coll.,	1879.
Ivins, Horace F., M.D., Philadelphia,	Hahn. Med. Coll. of Phila.,	1879.
Pursel, J. E., M.D., Renovo,	Hahn. Med. Coll. of Phila.,	1877.
Trites, Wm. B., M.D., Manayunk,	Hahn. Med. Coll. of Phila.,	1869.

For Corresponding Membership:

Bernard, H., M.D., Mons, Belgium.

REPORT OF THE BUREAU OF OPHTHALMOLOGY AND OTOLOGY.

In the absence of the Chairman of the Bureau of Ophthalmology and Otology, Dr. Bushrod W. James presented the following papers, which were accepted and referred to the Publishing Committee:

Rapid Loss of Sight in One Eye, by Jos. E. Jones, M.D.

The Cystotome in the Removal of Foreign Bodies from the Cornea, by W. H. Bigler, M.D.

The Mechanical Treatment of Glaucoma, by Horace F. Ivins, M.D.

Testing Refraction and Selecting Spectacles, by W. H. Bigler, M.D.

RAPID LOSS OF SIGHT IN ONE EYE.

BY JOS. E. JONES, M.D., WEST CHESTER.

It is seldom that the loss of sight takes place very rapidly in an eye, save it be from traumatic causes, or, if it does, it is more seldom that there are circumstances attending it by which the *rapid* loss can be clearly proven.

The sight of one eye may be going, and even gone for years, without the owner knowing it, except, by some accident, the

eyes are used separately. It is not rare in ophthalmic practice to demonstrate to a patient that there is the use of but one eye, the sight of the other being *nil.* Hence, a case that demonstrates the *rapid* loss of sight in one eye by cataract is of interest and profit.

A case came under my attention and care about two years since, the facts of which were as follows:

Mrs. B., aged 80 years, had enjoyed most remarkably good health, very seldom ailing, and but few days confined to bed during her long memory. Of late years she suffered somewhat with a stricture of the rectum, about four inches above the anus, which continued through some months, causing much local discomfort and habitual constipation. This gradually grew worse, in spite of continued therapeutic measures. An operation to dilate the stricture was offered, but owing to the patient's fear and age, it was rejected.

Her eyes had usually been good, and, for aught she knew, were alike in accommodation and refraction. At the ordinary age she had procured presbyopic glasses to suit her vision—about +12, and had comfortably used them many years without change.

About a year and a half before the loss of sight, she became accustomed to lay aside, at times, her spectacles, and use for reading a large biconvex lens of about two or two and a half inches focus, using first one eye then the other systematically, so as not to use one more than the other, and resting them with frequent alternation. This mode of reading she continued for six or eight months, knowing no difference between the eyes in their visual ability. One day she observed that the right eye was defective, having a mist over the field of vision, which rapidly increased, and by the end of forty-eight hours the sight of that side was entirely gone, save the faintest general illumination from a very brilliant light, while the left eye retained its former ability in no way impaired.

With the right eye she could not see a window, let alone distinguish the divisions of the panes. Shaking the hand between her and a glaring light gave no record on that side.

On minute examination there were the usual external ap-

pearances and changes that an advanced age produces; the lids being slightly granular, and the ordinary senile ring about the iris. The tension was quite normal. More than this could not be observed with the unaided eye.

Reflected light revealed some milkiness of the aqueous, but the cornea and iris seemed natural.

The ophthalmoscope opened out the cause of the loss of vision. All through the aqueous were streaks that resembled small fibers, in sections, running nearly parallel, but, at times, interlacing. These were not dense, but through them could be seen the blue, milky-white of an almost uniformly condensed lens.

Questioning and cross-questioning the patient, nothing could be elicited to develop any cause for this sudden change, save that it be attributed to old age.

Fearing that the left eye would take on the same degeneracy, I put her upon remedies to prevent it, and, if possible, to partially restore the vision of the defective eye.

After using several medicines at various times, I gave gelsemium[2], which, by the end of four or five days, made a decided impression upon the opacity, and she could not only detect more general light, but could see a hand held between her eye and the bright light in some positions of the field of vision. More than this gelsemium was unable to do, and she remained with the above defect in the one eye until her death, about a year afterwards.

THE CYSTOTOME IN THE REMOVAL OF FOREIGN BODIES FROM THE CORNEA.

BY WILLIAM H. BIGLER, M.D., PHILADELPHIA.

In many cases of foreign bodies in the cornea, occurring generally in workers in metal and stone, the finely pointed match-stick, in the hands of an experienced fellow-workman, is all that is required to successfully remove them. It frequently happens, however, that a patient comes to the oculist after repeated and oftimes not too gentle efforts at extraction have been unsuccessfully made, with the effect only of embed-

ding the foreign body more deeply in the irritated tissue. Here it often takes the skill even of the most experienced oculist to extract with the least possible damage to the eye. The usual spud will be found entirely useless, injuring the cornea out of proportion to the actual amount of good effected. The narrow-pointed cataract knife is decidedly preferable. The electro-magnet would be applicable in a limited number of cases. The entrance of a broad needle through the cornea to afford a point of resistance to prevent the pushing of the *corpus alienum* into the anterior chamber, will be avoided if possible. In such cases the indication is to use such an instrument as will enable us to reach the foreign body and exercise the proper leverage without abrading or lacerating the cornea, and without necessarily entering in the track of the body, on account of the danger of pushing it before the instrument.

I had tried the various instruments with varying degrees of satisfaction until in January of this year a patient presented himself with a long, thin splinter of iron so deeply embedded in the corneal tissue that it seemed to have closed over the point of entrance entirely—the unsuccessful efforts at removal having doubtless contributed to this result. All other instruments failing, I bethought me of the cystotome, with which it was the work of but a moment to make a clean cut close to and parallel to the line of the foreign body and down to it, and through this to tilt it out. Since this time I use no other instrument, even in ordinary cases, and am sure that all who try it will be equally well pleased. In using it the tendency of the eye to roll upward must be kept in mind particularly, lest the point be applied in such a way as to be driven in too deeply and become caught in the tissue.

THE MECHANICAL TREATMENT OF GLAUCOMA.

BY HORACE F. IVINS, M.D., PHILADELPHIA.

In the following pages I purpose giving a *resumé* of the various operations which have been introduced for the cure of glaucoma, from the year 1830 to the present time; not giving them in their strictly chronological order, but grouping them

according to their relation to one another, and the office which they are intended to fulfill.

The earliest attempts at combatting this disease were by *puncturing the ball*, either through the sclerotic or cornea, or by combining these and at the same time dividing the ciliary muscle and iris.

Paracentesis of the sclerotic was first recommended by Mackenzie in 1830; the operation was to be performed by thrusting a broad iris-knife through the coats of the eye posterior to the ciliary body, only stopping when the centre of the vitreous chamber had been reached. Prof. De Luca, in 1874, chose the space between the rectus externus and rectus inferioris muscles as the point of puncture.

This operation saved many eyes from total blindness, but the result was far oftener failure. Wells tells us* that "The escape of vitreous in glaucoma is a thing to be avoided, if possible, and not to be desired or courted; for we find that the loss of vitreous (for instance, in the operation of extraction of cataract) generally renders the eye more prone to chronic inflammatory affections of the choroid, accompanied by opacities of the vitreous humor, etc."

Paracentesis corneæ was introduced by Desmarres in 1847. A puncture is made through the cornea with a broad needle or a knife, allowing the aqueous to flow off, being careful to avoid the iris and lens. This operation has proved little more than a palliative one. Soelberg Wells said of it:* "We know that its effect is but transient; that it relieves the intra-ocular tension for a short time, but that this relief is not permanent, for the latter (as well as other glaucomatous symptoms) soon manifests itself again." True it is, that the tapping can be repeated as often as occasion requires, but as Secondi remarks:† "frequent repetitions of paracentesis are not without danger, not to speak of their annoyance to the patient." In Priestly Smith's work on Glaucoma, we read:‡ "There is not the slightest doubt that glaucoma has been many times relieved, and occasionally cured, by paracentesis in one form or anoth-

*Loc. Cit., p. 590. †Hackley-Rose; Stelwag., p. 247. ‡Loc. Cit., p. 220.

er; and, on theoretical grounds, I believe that the simultaneous opening of the aqueous and vitreous chambers, or even the opening of the vitreous chamber only, may be a preferable proceeding to the evacuation of the aqueous chamber by a puncture;" but, "the operations in question have never gained a wide acceptance."

Hancock, in 1860, devised an operation by which the aqueous and vitreous chambers were simultaneously opened, and at the same time divided the ciliary muscle; this operator had many followers and the procedure underwent various modifications. He described his "*intra-ocular myotomy*" thus:* "A Beer's cataract knife is introduced at the outer and lower margin of the cornea, where it joins the sclerotic. The point of the knife is pushed obliquely backwards and downwards, until the fibres of the sclerotic are divided obliquely for rather more than one-eighth of an inch; by this incision the ciliary muscle is divided, whilst if there be any fluid accumulated, it flows by the side of the knife."

This operation has cured many cases of glaucoma, and will doubtless continue in favor with some few operators, among whom we may mention no less an authority than Mr. Power, of London, who has performed Hancock's operation in a large number of cases.

Solomon, in 1861,† cut through the insertion of the iris and ciliary body, entering the knife through the sclero-corneal junction, making a cut of 2 to $2\frac{1}{2}$ lines, parallel with the equator of the ball, then withdrawing the knife very slowly in order to avoid the prolopse of the iris and escape of the vitreous.

Heiberg, in 1863,‡ made a smilar incision either with a Graefe's or Ritter's cataract needle, 4 mm. long, parallel to the sclero-corneal junction, but 2 to 3 mm. back of it.

Prichard, in 1871,§ introduced a small knife through the sclera, one line from the corneal margin, pushed it through the ciliary edge of the iris and the zonula, and out through

* London Ophth. Hos. reports, July, 1860.

† Graefe und Saemisch, Glaucom von Schmidt, p. 125. ‡ Ibid., p. 126.

§ Graefe und Saemische, Schmidt, p. 126.

the sclerotic. It was introduced from above, with the back toward the centre of the cornea.

Critchett* performed an operation which is a form of iridectomy, but is usually classed among the paracentesis operations. He makes the usual incision for iridectomy, but removes only a portion of the iris, leaving the ciliary edge in the wound, thinking, thereby, to keep up a constant drain. Later, Coccius† made use of the same method.

De Wecker, while referring to the foregoing, says, in his Ophthalmic Therapeutics:‡ "These operations are uncertain in their action, and are now abandoned."

An operation for "trephining the *sclerotic*," was introduced by Dr. Argyll Robertson, about seven years ago. In speaking of his operation at the International Congress last year, Dr. Robertson said:§ "It is only to be had recourse to in those cases where an iridectomy is inadmissible, or where the disease has progressed, notwithstanding the performance of an iridectomy. I have, therefore, only employed the operation in a few cases, and only those of a bad type. In patients in whom there was a good hope of restoration of useful vision, I always prefer to do an iridectomy, as it is a much less dangerous operation than trephining the sclerotic; this latter being apt to be followed by intra-ocular hæmorrhage. In the first cases in which I operated, I perforated both the sclerotic and choroid with the trephine, but latterly I have modified the operation by merely removing a disc of sclerotic at the distance of about three lines from the margin of the cornea, and then puncturing the choroid and retina so as to allow a little vitreous humor to escape. * * * In one case, in which both eyes were affected with marked glaucoma, and in which I iridectomised the better eye and trephined the sclerotic in the worse, vision eventually became entirely lost in the iridectomised eye, while useful vision was retained in the other. In most cases I first employ iridectomy, and when that proves

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* London Oph. Hos. Rep., No. 1856, p. 59.

† Ueber Glaucom, etc., 1859, p. 18.

‡ Loc. Cit., p. 274.

§ Trans. Inter. Cong., London, 1881, vol. iii., p. 106.

insufficient, I either perform sclerotomy, * * * or I trephine the sclerotic."

In 1872, De Wecker recommended trephining the *cornea* "in those cases of absolute glaucoma in which a satisfactory iridectomy cannot be made on account of the advanced atrophy of the iris, and a simple sclerotomy would not suffice. In such cases the object is to relieve the patient of the often intense pain without submitting him to the operation of excision of the eyeball. De Wecker, therefore, removes with the trephine a circular portion of from 1 to 1½ mm. in diameter at the edge of the cornea, in such a way as to avoid all risk of injuring the lens, or of approaching too closely to the ciliary body. In this way a large filtration cicatrix is established." *

In 1876, De Wecker, in an article on 'Glaucoma and Eye Drainage,' described a new method of treating glaucoma by inserting a loop of very fine gold wire through the tunics. This operation he devised for absolute or hæmorrhagic glaucoma; and cases in which the tension was not reduced by iridectomy. More recently, however, he uses it in absolute glaucoma when pain frequently recurs, and the patient refuses enucleation; but "this," said Wecker,† "can only be had recourse to if we can keep the patient under observation, and, if necessary, remove the thread of gold. This latter should, if the eye is rendered at all irritable by the foreign body, traverse an extent of sclerotic five mm. long, near the corneal margin, by a strip one ctm. in depth behind the ciliary body."

In referring to this operation in his Glaucoma, Priestly Smith wrote:‡ "My own experience of it in three cases is anything but satisfactory, and inclines me to venture the opinion that it is unjustifiable in any case in which blindness is not already complete. * * * As regards the so-called "drainage," I think it is by no means certain that the operation deserves the name. An immediate escape of vitreous relieves the tension as in any other form of paracentesis, and may occasionally cause a glaucomatous condition to subside, but twenty-four hours later it will be found, in some cases at least, that

* Well's Amer. Edition, 1880, p. 597. † Eng. Trans. Therapeut., p. 277.
‡ Loc. Cit., p. 221.

high tension has returned. The subsequent excessive softening which occurs, and which, as Von Wecker states, may be permanent after the removal of the wire, is more suggestive of the lighting up of morbid changes within the eye, probably with detachment of the retina, than of a persistent draining away of the intra-ocular fluid."

In 1879, Dr. George E. Walker, of Liverpool, published his 'Essays on Ophthalmology,' in which he describes an operation first performed by him on December 3d, 1876, and to which he has given the name, 'Hyposcleral Cyclotomy.' This operation he devised for various reasons, viz.: 1st, to do away with the disfigurement incident to the performance of iridectomy, especially if there be a recurrence of the glaucoma, necessitating the removal of a second portion of iris, and further, something which would be more certain in its action; 2d, to have an operation which would answer to the advantages of Hancock's operation, without being subject to the complications frequently encountered during the performance of the latter operation, from prolapse of the uvea.

Of sclerotomy he wrote, very playfully,* it "is, fortunately, an operation of so transparently honest a character, that it has already had its day, although only a bantling of some few months." This author, in describing his own operation as performed upon a glaucomatous eye, said: † "I pinched up the conjunctiva with toothed forceps, slightly to the inner side of the vertical diameter below, and then thrust perpendicularly through the cornea, well within transparent tissue, a very narrow knife, edge upwards, exactly opposite to the point held by the forceps; then, depressing the handle so as to bring the knife-edge parallel to the curve of the tunics, I thrust it through the iris, and slowly withdrew it, cutting as I did so everything up to the sclerotic."

Mr. Walker's operation has received but little favor, even at the hands of his own countrymen. Mr. Higgins, of London, probably incited by the uniformly favorable reports of hyposcleral cyclotomy contained in Mr. Walker's essays, performed the operation in seven cases, after which he remarked :‡ "The

* Loc. Cit., p. 4. † Loc. Cit., p. 17.

‡ *London Lancet* (Amer. reprint), p. 260, March, 1881.

expectation raised by perusal of the essays in question were scarcely realized."

If we were to judge of the merits of the operations so far considered from the opinions expressed by many of the most celebrated ophthalmic surgeons of Great Britain during the debate on sclerotomy recently held in London, we should be forced to believe that they are, when compared with iridectomy and sclerotomy, of but little practical value.

The introduction of *Iridectomy*, by Albrecht Von Graefe, in the year 1856, for the cure of glaucoma, marks an era in ophthalmic surgery, and until 1867, when De Wecker proposed the so-called sclerotomy, it was the only operation which had been favorably received by the profession as a cure, all others being palliatives simply, in most cases at least; and at present the cure of glaucoma depends, mainly, upon the employment either of iridectomy or sclerotomy; but the great good which followed the introduction of iridectomy for the relief of this then almost incurable disease, has given to the name of Von Graefe a never-dying fame, and should this operation ever be superseded by its companion, sclerotomy, or any method as yet unborn, Graefe would still receive the high honor of having brought about one of the greatest and most beneficent reforms in ophthalmic surgery.

In the performance of iridectomy we choose either a lance (keratome), or a linear knife (preferably a Graefe's). If the anterior chamber is of nearly natural depth, or if the plane of the iris is nearly vertical, the keratome is the knife usually employed; but if the iris is pushed much forward, there being but a shallow anterior chamber, so that the keratome would probably endanger the lens in traversing the area of the pupil, it is usually better to use a Graefe's knife. Many operators, however, employ one of these knives in every case, excluding the other entirely. The coloboma is made preferably above, although the lower operation has some advocates; but if necessity demands it, any other position may be selected. If the keratome be used, it should be placed upon the conjunctiva a little posterior to the sclero-corneal margin, even 2 mm.; it may be at the junction, or even in the clear cornea. The

knife is to be pushed gently and carefully through the sclero-corneal tissue into the anterior chamber, carefully avoiding the iris, until it has traversed a moderately dilated pupil, then the point of the knife is to be directed slightly forward and very slowly withdrawn, allowing the aqueous to flow off, but gradually. Should the incision be too small to allow the easy excision of the iris, on account of the narrowness of the knife, the external angle may be enlarged by cutting with the side of the blade as it is withdrawn. Should the aqueous flow off before a sufficiently large incision has been made, or should the iris have become entangled on the point of the blade, the forward progress of the knife should be instantly checked, but must be made to cut its way out as previously mentioned. If a linear knife be used, its point must be introduced at one extremity of the intended incision, and made to traverse very cautiously the anterior chamber to a point exactly opposite that of introduction, when the counter-puncture is to be made. The knife must then cut its way out by slow, long, backward and forward movements ; being careful that it cuts smoothly as it passes out, and is not allowed to go through with a jerk. Should the incision prove too short, it may be enlarged at the angles by a pair of scissors or a blunt-pointed knife carefully introduced, not allowing the point to reach to the pupil. It is usually preferred to make the incision well within the sclera, externally, but many operators choose the sclero-corneal junction, and even make it entirely within the cornea. The flap should be about 2 mm. high at its central point.

The iris is next grasped with a pair of iris forceps and pulled well through the wound, while the scissors are made to cut the iris close to one end of the incision and quite up to its ciliary margin. The operator then *tears* the piece which he holds by the forceps, from its attachment, until the opposite extremity of the wound is reached, when with the scissors he cuts, well in the lips of the wound, the piece thus held. The wound must then be thoroughly cleansed; if any pieces of iris remain in the angles, they must, if possible, be returned within the globe, if not they should be snipped off; should any par-

ticles of coagulated blood remain between the lips of the wound, they must be removed with a spatula, or lifted away with forceps. According to Arlt, the coloboma should be three mm. wide.

Should a second iridectomy become necessary from a recurrence of the glaucoma, it should be performed diametrically opposite the first, unless the return of the disease be due to an adhesion between the edge of the iris and lens capsule, when it is perhaps preferable to take the second piece of iris, and it need be but a small one, from the side of the original coloboma.

While the operation is differently performed by some, the foregoing method is probably the most generally employed. Many claim that it is unnecessary to tear the iris from its insertion, they simply excise it. Upon this subject Macnamara wrote:* "By iridectomy I do not simply mean the excision of a portion of iris, however large it may be; the operation consists in the successful removal of a section of the iris, together with its ciliary attachments, and I consider this indispensably necessary for the cure of glaucoma;" and further on we read:† "To make sure that its ciliary attachment and the elastic lamina are broken through, I usually run a spatula immediately beneath the sclerotic through the ciliary body, as far backwards as to a line corresponding with the ora serrata, making in this way a free passage from the choroid into the anterior chamber."

Following the employment of iridectomy for the cure of glaucoma we may, in rare cases, have unfavorable conditions arise; as panophthalmitis, or purulent inflammation; iridocyclitis and sympathetic ophthalmia; internal (choroidal) hæmorrhage—often from a too rapid evacuation of the aqueous; the anterior chamber does not refill with aqueous, thus leaving the iris nearly in contact with the cornea; agglutination of iris to capsule in one or both wound-corners, thus setting up anew the increased tension by preventing the free communication of the aqueous between the anterior and posterior chambers, the sclero-corneal wound may not heal perfectly,

* Loc. Cit., p. 226. † Loc. Cit., p. 230.

leaving a cystoid scar; traumatic cataract may follow either on account of a wound of the lens with the knife as it traverses the pupillary area, or as a result of the too rapid escape of the aqueous the lens is forced so violently forward as to rupture its capsule. In the year 1862, Von Graefe injured the capsule but once in over four hundred operations, thus showing that when carefully performed this must be a very rare accident. Upon this subject Mauthner, in his article on 'Glaucom,'* says: "So far as I have seen, every eye has been lost in which the capsule has been injured during the performance of an iridectomy in the acute inflammatory stage."

It has been found that after an operation upon the affected eye, the second, if sound, may become affected as a result, apparently, of the operation. After the wound has healed we may find the cornea so distorted as to cause astigmatism, either regular or irregular. The coloboma may give the patient some annoyance from the flashes of light or bright colors and rings, owing to an inability to cover it sufficiently with the lid, in which case tattooing the cornea over the coloboma may be of service. At times when none of the foregoing conditions are present, the tension normal, and pain gone, the vision, for some unexplainable reason, gradually fails.

Many operators, even at the present day, perform the operation of iridectomy in every case of glaucoma requiring mechanical interference; but the majority, perhaps, make use of it only in certain conditions, while at other times they will select sclerotomy. It is impossible to lay down any precise rules as to when iridectomy should be employed, or when some other operation, as this point is as yet unsettled; but we can at least, I think, rely upon the efficacy of iridectomy in those cases in which it has been acknowledged *the* method by the great advocates of its rival operation sclerotomy; (De Wecker, of Paris, and Mauthner, of Vienna,) viz.: in acute glaucoma and in the irritative forms, in which the tension is such that myotics do not produce any effect, or have but an imperfect action; and in those forms of glaucoma where there is much haziness of the aqueous and vitreous. On this latter point Graefe wrote: † "The more sudden the cloudiness of

* Loc. Cit., p. 104—1881. † Graefe's *Arch.*, vol. xv., 3, 113.

the media with which the disease comes on, the more does the *real pith* of the operation seem to lie in the excision of the sphincter."

Very few, even of its strongest advocates, will now use it in either the hæmorrhagic form or secondary glaucoma after cataract extraction; and, again, many are afraid to iridectomise an eye when its fellow seems to be in a normal condition, because experience has shown that the operation often precipitates the attack in the sound eye; in such a condition as this, sclerotomy is to be preferred, as it is also where central vision remains good, where the iris is degenerated, and in myopic eyes.

The operation of *Sclerotomy* was recommended by De Wecker in the year 1867, but the first report of the operation came from Von Stellwag in the following year, since which time it has constantly been gaining favor, especially in Europe, while in this country we hear and see comparatively little of it, although some of our ophthalmic surgeons have been much pleased with its action in certain cases.

De Wecker performs the operation with a Graefe's knife, or a lance-shaped sclerotome, two to four mm. wide. With either of these knives he transfixes the anterior chamber, introducing the knife one mm. back of the sclero-corneal junction; and as it passes across the anterior chamber he "incises the angle of the iris in its whole extent," being very careful to have the counter-puncture exactly one mm. from the edge of the clear cornea. The section should be made as if for a flap from 2-4 mm. high. The incision then is to be continued until two-thirds of the section are completed, a bridge being left undivided equal to one-third of the flap marked out. The knife is then to have its edge turned slightly toward the cornea, in order to allow the aqueous to flow off gradually. During the escape of the fluid the iris may roll up over the back of the knife, but the presence of this instrument prevents a prolapse. After the anterior chamber has become pretty thoroughly evacuated, and the pupil has contracted, the knife is to be very slowly and carefully withdrawn. Should the iris, nevertheless, come forward into one of the lateral incisions, and cannot be re-

placed by a small probe, curette, or spatula, and eserine fails to make a reduction, it is better, according to Wecker, Mauthner and others, to enlarge the scleral opening and remove a portion of the iris; while Quaglino, Bader and others pay but little attention to it.

Eserine should always be instilled before performing sclerotomy, in order to guard against a prolapse of the iris.

This operation, like iridectomy, is performed in various ways, according to the fancy of the operator, though most surgeons prefer to follow Wecker's plan, while others again divide all the tissues to the conjunctiva, not leaving a bridge of sclerotic standing; but with these operations there is greater danger of prolapse of the iris; further, the incision may be made wholly within the clear corneal tissue, at the sclero-corneal junction, or as far as two mm. posterior to it.

Quaglino "used a broad keratome, which he introduced from two to two and a-half mm. back of the sclero-corneal margin, as in iridectomy, and passed the knife obliquely and slowly through the sclera toward the anterior chamber, which it entered after dividing the ligamentum pectinatum. The knife is pushed forward until one-third of it appears in the anterior chamber. In order to prevent a prolapse of the iris, and a too rapid evacuation of the aqueous, the knife is withdrawn very slowly, at the same time pressing it slightly against the iris; but even with that precaution prolapse is frequent. In such a case Quaglino endeavors, by enlarging the wound on each side, to push the iris back; when this fails, the prolapse is incised in the direction of its radial fibres. After a loss of the aqueous, the iris then almost always retracts; but adhesion to the inner wound surface and displacement of the pupil is hereby almost unavoidable."*

Mr. Bader, of London, in an article read at the International Congress held in London last year,† wished to prove, "1st, that the kinds of glaucoma usually treated by iridectomy can be treated, and more successfully, by sclerotomy; 2d, that, to secure success, it is desirable to obtain, and to maintain, a staphyloma

* Graefe und Saemisch, p. 122. † Trans. vol. iii, p. 98.

of the conjunctiva, with or without prolapse of the iris. * * * I consider the prolapse of the iris," said Mr. Bader, "a favorable accident, and the non-occurrence of a staphyloma of the conjunctiva as an unfavorable symptom. All steps of the operation, and of the after-treatment, must tend to secure a bulging of conjunctiva, or of the conjunctiva and iris, as a safety-valve to too high tension of the eyeball." He performs the operation upon the right eye with a Graefe's knife, and on the left with a bent cataract knife, always standing behind the patient. "The knife is pushed through conjunctiva and sclerotic into the anterior chamber, as near as possible to the insertion of the iris, then through the chamber, not sparing any portion of the iris which should get in the way, and out again at a corresponding point on the opposite side of the eye, dividing all the tissues, as in extraction by Von Graefe's method, excepting a narrow band or bridge of conjunctiva, which is left uninjured."

Secondi "made an incision at least 7 mm. long, with a small, peculiarly shaped linear knife, just beyond the ciliary body and into the conjunctiva and sclera, without, however, opening the cavity of the globe, or even pressing through to the choroid. In one of these cases, which Prof. Schiess, of Balse, also saw, there was not only a decrease of the glaucomatous symptoms, including a pathological increase in pressure, but the patient, who, before the operation, had mere perception of light, could count fingers at 50 cm. a few days after the operation." *

In Galezowski's operation,† "a Graefe's knife is introduced through the sclerotic at about 3 to 4 mm. from the border of the cornea, pushed forward toward the anterior chamber, and sclerotic and cornea incised from behind forward to the distance of 1 ctm.; this is repeated at a point opposite the first incision, as well as at two points at right angles to it; the section is thus made in four situations. Eserine is used immediately after the operation, and a compress applied to the eye. The result of this method has been satisfactory in his hands,

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*_Arch. Ophth._, vol. vii., 1878, p. 211.

† Braithwaite's _Retrospect_, p. 256, July, 1881.

especially as compared with iridectomy on the other eye. The tension is so much reduced by it that it is not suitable for cases of hæmorrhagic glaucoma; indeed, in one case it failed, owing to the hæmorrhage, and the eye had afterward to be removed." (Edin. *Med. Jour.*, Dec., 1880, p. 571.)

"We have to unite a distinct idea to the word sclerotomy," says Mauthner,* "that we have to understand by sclerotomy a distinct operation, whose task it is to make an incision at the scleral border of the cornea, that shall penetrate into the anterior chamber, without causing a prolapse of the iris. When Hirschberg sees Mr. Bader perform sclerotomy at Guy's, 'and must confess that he imagined the results of sclerotomy to be worse than the autopsy showed them to be,' but that after what he had seen in Bader's clinic, he could not hesitate for a moment to decide for iridectomy in comparison with sclerotomy, and when at the Berlin Medical Society (Nov. 21. 1877), he appeals to what he has seen at Guy's, to prove that sclerotomy is unsafe, then any one not *au fait* in sclerotomy might fall into mistaken ideas. Bader's operation * * * is, as any one will see, a sort of monstrosity (if I may be excused the expression); an operation whose unfitness and danger can easily be seen from the standpoint of the irrevocable laws of operations on the eye, and which can best be illustrated by Bader's own account. If I should open one-half of the circumference of the cornea with a Beer's knife, and let the iris fall forward, and from this bulging portion of iris excise a small bit, even that would be an 'iridectomy'; but," Mauthner adds, "it would be altogether impertinent to speak absolutely of such an operation as an iridectomy, and to confound its results with those gained by an iridectomy made according to rule."

De Wecker, at first, advocated sclerotomy in the incipient stage with normal vision between the attacks; simple glaucoma in which both central and peripheral vision are nearly normal; in simple glaucoma when the margin of the visual field, even at one side only, touches very slightly or comes very near to the point of fixation; in the hæmorrhagic form,

Arch. Ophth. vol. vii., p. 218.

and in glaucoma absolutum; more recently he employs it in every form of chronic simple glaucoma; in irritative glaucoma in which the use of myotics transforms the disease into the simple form; and where well marked myosis is produced by eserine, and in hæmorrhagic and absolute glaucoma.

In reference to the absolute and hæmorrhagic forms, we find in his Ocular Therapeutics, * that, "in such cases, instead of enucleation, and instead of making vain attempts to excise an iris already atrophied to the utmost, instead of exposing yourself to the danger of dislocating the lens, and inducing serious internal hæmorrhage, together with increased pain, perform boldly a sclerotomy, which you may repeat if necessary, should its action appear insufficient;" this second operation should be performed, preferably, directly opposite the first.

According to Mauthner,† sclerotomy is called for, "1st, in the so-called prodromal stages of glaucoma; *i. e.*, where between the separate inflammatory attacks, the function of the eye remains wholly intact; 2d, in glaucoma simplex, where central and peripheral vision are still almost normal; 3d, in chronic glaucoma, where the defect in the field has drawn extremely near to the point of fixation, even if from one side only, * * * and in secondary glaucoma after luxation of the lens, and after choroiditis serosa, as also in glaucoma hæmorrhagicum, and finally in glaucoma absolutum," he says, "the conditional supporters of sclerotomy will, probably, prefer to try it, rather than iridectomy."

Nettleship employs it, "(1) after failure of iridectomy; (2) in advanced cases where the angle of the anterior chamber is, probably, permanently closed; (3) simple chronic glaucoma, with good anterior chamber and healthy iris." ‡

At a recent meeting of the Ophthalmic Society of the United Kingdom,‡ "Mr. Critchett said his confidence in iridectomy was not at all shaken, and in cases where there were no contraindications for it he preferred it to sclerotomy, as doing all that sclerotomy did and something more, because its results were more reliable and lasting. But it might be

* Eng. Trans., p. 275. † *Amer. Arch. Ophth.*, vol. vii, p. 241.

‡ *London Lancet*, Amer. reprint, Aug. '82, p. 134.

claimed for sclerotomy that it was less painful, easier to do, freer from cosmetic results, and less likely to interfere with the functions of the eye than iridectomy. In cases of very acute glaucoma he had had no experience of sclerotomy, but the difficulties and dangers of iridectomy in such cases were so striking that he thought that in some it would be well to perform sclerotomy even if iridectomy were afterwards required. For cases of hæmorrhagic glaucoma he should recommend sclerotomy, as iridectomy gave such sad results. He should follow the same course in cases of acute simple glaucoma characterized by sudden attacks of extreme dimness of vision lasting for only a short time, and then leaving the vision normal, extreme tension of the globe, fixed pupil, shallow anterior chamber, and complete absence of pain and all signs of inflammatory action. But it was in cases of traumatic glaucoma after extraction of the lens that he had found sclerotomy most useful. In these cases it was very difficult and also unsatisfactory to do iridectomy; but sclerotomy had always given him good results. * * * Mr. Critchett protested against a complete division of the iris as opposed to recognized surgical principles and likely to lead to constant irritation."

Mr. Spencer Watson prefers sclerotomy in all cases of eyeball tension in which myotics are responded to. He also finds it useful in the subacute, the acute, and in the hæmorrhagic forms, and where the iris is diseased; but thinks it is not suitable for glaucoma fulminans, or where he suspects adhesions of the pupil or of the periphery of the iris to the cornea.

Mr. Swanzy is not willing to perform sclerotomy unless the pupil is fully contracted.

Dr. Knapp, at the Medical Congress, last year, in London, said,* "I have practiced sclerotomy for chronic and subacute glaucoma exclusively for the last eighteen months. I have, thus far, escaped the dangers of what is called malignant glaucoma after operation. But I cannot consider sclerotomy as being entirely innocent; for an eye, suffering from hæmorrhagic glaucoma, was destroyed by suppurative irido-choroiditis following upon the operation."

*Trans., vol. iii, p. 107.

Further, sclerotomy is indicated in myopic eyes where the field is extremely contracted; and in glaucoma without cloudiness of the media. It is generally recommended not to perform sclerotomy where the anterior chamber is very shallow, and where the pupil will not respond to myotics.

With sclerotomy, as with iridectomy, many will make use of it in every case, while others seldom or never employ it; as an example of the former class, may be mentioned Mr. Bader, who has not performed iridectomy for the past seven years.

In concluding this article, I cannot do this subject greater justice than by reproducing the extract of some remarks made by the venerable Mr. Bowman, as published in the *London Lancet*, last month,* in which that gentleman said: "Iridectomy was undoubtedly a potent remedy for glaucoma, but in a number of cases it was not successful, and it remained to be shown whether any other treatment could supersede it in these cases. Eserine was an important gain, and its use, he thought, would probably never be discarded. In the present stage of our knowledge it was very important to know what form of sclerotomy should be performed, and in what forms, in what stages, and under what complications of glaucoma it was to be advocated. Cases of glaucoma required to be treated individually, and particular means adapted to each special case. The question was a difficult one to answer on account of the complexity of the parts involved, and of our ignorance of the true nature of glaucoma; for he supposed no one would say that that problem had been solved. At present he was not able to decide definitely as to how glaucoma was produced, how it was relieved, and why it sometimes relapsed."

TESTING REFRACTION AND SELECTING SPECTACLES.

BY WILLIAM H. BIGLER, M.D., PHILADELPHIA.

The purpose of the following paper is to emphasize the fact that testing the refraction of an eye is a different thing from fitting it with suitable glasses, and that while fixed rules may

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*Amer. reprint, Aug. '82, p. 134.

be given for the former, only experience and trial can enable us to do the latter.

Before attempting to prescribe glasses, it is of primary importance to have a clear conception of the object to be gained by their use. This, of course, will vary somewhat, according to the character of the case to be treated. Much as we must extol the wonderful science and mechanical skill that enable us now to relieve cases such as formerly were doomed to life-long discomfort and disability; yet must we never forget that the glass outside the eye is not to become a substitute for the eye, but is to be subservient to it, and is to be used or not used, according to the practical requirements of vision, and as much as possible as a therapeutic agent. Judging from the number of those who derive little, if any, comfort and satisfaction from the use of spectacles prescribed by competent oculists, after apparently the most careful examination, we are led to believe that on the part of many the practical needs of an eye are made to yield to the theoretical demands of its refraction. We meet many who have been led to consult some oculist by trifling symptoms of asthenopia, or even presbyopia, who have not only not been relieved by the prescribed glasses, but have had their discomfort intensified thereby, in spite of (I should say "in consequence of") their conscientious endeavor to follow instructions, and "become accustomed" to their glasses.

By the use of a mydriatic we eliminate entirely the subjective personal element, and the eye becomes a simple optical instrument, the power of whose refracting media there are simple rules for ascertaining. Were the eye constantly to remain in this condition, nothing could be easier than to prescribe the glasses that would be required for any use to which it might be put; but so soon as the effects of the mydriatic have worn off, the personal, or rather the individual, element reasserts itself, and becomes the important factor in determining the result obtainable. The eye is now no longer simply *an* eye, but one belonging to a particular individual, has been accustomed to a certain amount of work and rest or nourishment, and has, therefore, as much an individuality of its own,

compared with other eyes,—even with similar refraction,—as has its owner. It is the want of a proper appreciation of this individual factor that causes so much disappointment in the results obtained. This factor is itself so variable that it cannot be determined by any calculation. Although modified by age, sex, occupation, general condition of the system, and constitutional peculiarities, the amount and character of this modification is an altogether unknown quantity, and the skill of the oculist lies in discovering this, and making allowance for it in his prescription. It would occupy too much time to give all the rules that will assist us in doing this; it will be sufficient for my purpose, to point out a few of the main points under the several classes of errors of refraction, that should receive our particular attention, premising that I regard the use of a mydriatic as essential to an absolutely correct diagnosis of the class and degree. We all know that a high degree of hypermetropia may simulate myopia, and that myopia may apparently be increased by a spasm of the accommodation, while in astigmatism the varying action of the ciliary muscle will produce inextricable confusion if unrestrained. To judge from the results obtained by those who prescribe glasses by the aid of the ophthalmoscope alone, it cannot be considered a reliable method.

In *hypermetropia* the constant action of the ciliary muscle has a tendency either wonderfully to increase its power or to wear it out. In the former case, most of the hypermetropia will be latent; in the latter, most manifest. If now, through any temporary impairment of the general health in the former case, a certain degree becomes manifest, and symptoms of asthenopia supervene, so that an oculist is consulted, and it appears that a high degree of hypermetropia is actually present, it seems to me poor practice to disregard the probably temporary character of the inconvenience, or to prescribe glasses without regard to the previous habits and capabilities of the eye. This error is frequently committed, and as a result we have long discomfort, until the eye has become incapacitated sufficiently to endure the glasses, and a permanent disability and need for glasses ensues. By viewing the lenses as a

temporary expedient we might have gained comfort from the beginning, and have assisted the eyes in regaining their original strength, and enabling them, for a time, at least, to perform their work without assistance. We must remember that the stronger the glass, and the more constantly worn, the less is the ciliary muscle called upon to act, and consequently the less able it becomes to do so when called upon.

In the second case, where the power of the ciliary muscle seems to have become exhausted by over action, there is less prospect of entirely restoring it, but even here our aim should be to give it rest, without taking away all occasion for action, while remedies, acting both on the general system and locally, should be administered.

By following these principles, we may, in numerous cases, avoid condemning the young to the life-long discomfort of spectacles, although in some it is unavoidable.

In *myopia* the use of glasses serves to develop the muscle of accommodation, which is little used by myopic eyes in comparison with the muscles of convergence. The early use of glasses for the correction of myopia, therefore, I consider of great benefit, since by it the eyes are put into a more nearly normal condition, and the harmony between accommodation and convergence is preserved, a point of very great importance. I prefer correcting almost the entire myopia with the first glasses used, as I think the results are better in checking its increase and preserving and developing the accommodation power. The younger the patient the more nearly do I correct the total myopia. If the patient is older when glasses are first used, I am governed by his sensations in approaching total correction. The use of prisms is, of course, occasionally necessary here when we have muscular asthenopia, but as the comfort they give is at the expense of the power of the muscle relieved, I am slow to employ them.

In very high degrees of myopia, when glasses do not benefit for reading on account of the smallness of the retinal image, I advise to use the naked eye, and only the one, to prevent the disastrous results of over-convergence.

In all but the lowest degree of myopia I recommend glasses

to be worn constantly, for the same reason that I advise their early use.

In *astigmatism*, the effects of a misfit are particularly dangerous, and in no form of error of refraction is the individuality of the patient more prominent. Complete paralysis of the accommodation is here indispensable to a correct diagnosis.

In *simple astigmatism* we are governed by the principles already laid down. When presbyopia is present we simply add this element to the whole glass. The character of the lens may, it is true, be entirely changed thereby, but it will present no difficulty.

In *compound astigmatism* a common fault is to correct the entire H or M in one meridian, and only part of it in the other, misled by the formulæ H+Ah. and M+Am., thus producing an irregular and consequently uncomfortable, if not painful, action of the ciliary muscle. To avoid this, after the effects of the mydriatic have entirely disappeared, I put on the combination for the *total* error of refraction, and then add or subtract the convex or concave glass found necessary to give satisfaction.

In *mixed astigmatism*, where the myopia is but slight, we will often do best to disregard it entirely for near work, and to prescribe convex cylindrical glasses. Even when prescribing a combination for mixed astigmatism, the choice must be made with a due appreciation of the difference between an hypermetropic and a myopic eye, and of the fact that by correcting the myopia we bring into play the accommodation, too. Cases of long uncorrected mixed astigmatism, with presbyopia superadded, I have found to be especially difficult to correct satisfactorily.

In *anisometropia*, the only rule that can be laid down is to give satisfactory vision with one eye, and to endeavor to bring the other one as nearly as possible in harmony with it. The eye to be suited must be the one that has the clearer vision, if there is any difference (and there generally is), and not the one necessarily that has either the lesser or the greater error of refraction.

In the relative amounts of accommodation and convergence, individual peculiarities are very apt to show themselves. Before aid is sought a disharmony has already in many cases been developed, which sets at naught the ordinary rules for prescribing. Such cases require our closest care, for although the refraction may easily be diagnosed, the cause of the difficulty in relieving the eyes may long escape notice. When discovered, several successive pairs of glasses will have to be used before one can be adopted for permanent use. By the use of stronger or weaker lenses and prisms we can generally succeed in restoring the harmony, which should be more our aim than simply relieving the discomfort attending the disharmony.

Finally, in no case, where possible, should a prescription be given before testing it on the eyes after their complete recovery from the effects of the mydriatic.

By keeping these principles in view we will be enabled not only to test the refraction, but for each individual case to select glasses that shall bring not only satisfaction to the patient, but benefit to his eyes.

Dr. B. W. James: There is one point in regard to sudden loss of vision that I would mention. It is rarely the case that sight is lost suddenly, except in cases of hæmorrhage into the retina. This accident is of rather frequent occurrence in elderly persons, and is due in such instances to degeneration of the arterial coats. I had one case recently in which the loss of sight came on suddenly while the patient was riding in a car. The blindness continued for three or four weeks. This condition is entirely different from that of a mere temporary loss of sight, such, for instance, as after looking at a bright light, which is simply an anæsthesia of the optic nerve.

I desire to call attention to the operation for glaucoma, which is proposed in place of an iridectomy. The operation was suggested by Dr. Walker, and called by him hypo-scleral sclerotomy. It is done by passing the instrument directly through the sclerotic and back of the iris, and dividing the ciliary

muscle. The operation is a very neat one; the puncture readily heals, and there is no necessity for removing a portion of the iris, which always leaves an irremediable deformity. I always keep the patient in bed for two weeks after the operation, simple as it may seem, for by so doing I am able usually to prevent the occurrence of iritis. This operation can be performed in all cases where it is necessary to make an iridectomy.

Dr. WILLARD: I would like to ask Dr. James if there are any remedies that we can depend on to cure glaucoma? Many of our physicians are practicing at some distance from a specialist in eye diseases, and not having the requisite experience in such operations, should have some remedial agents to use in their place.

Dr. JAMES: I have found in eserine a remedy which holds in check and controls attacks of glaucoma. The eye must be frequently examined in regard to the field of vision in order to note the progress of the disease. I use the remedy in the third or, in very bad cases, in the first decimal attenuation; giving a dose every two, three, or four hours, according to the severity of the case.

Eserine is used by old school physicians by instillation, but it soon loses its effect when used that way.

I cannot say that I have seen much benefit from other remedies. I have also used gelsemium, and rhus. Belladonna seemed to make my cases worse. Aconite seemed to do some good, but did not really cause improvement. I always use medicinal treatment before subjecting patients to an operation, unless the case is rapidly getting worse.

Dr. MORGAN: I had one remarkable case of glaucoma in a mulatto woman, so diagnosed by Dr. C. M. Thomas and myself. I used pulsatilla^{200}, three times a day, and applied glasses, and the patient was entirely relieved in a week or ten days.

Dr. JAMES: In regard to the paper of Dr. Bigler on the use of the cystotome in removing foreign bodies from the cornea, I think that those who use rough instruments, such as a piece of wood sharpened to a point, etc., are likely to produce inflammation of the cornea, which may be difficult to manage. If,

on the other hand, you use a sharp, cutting instrument, you make a clean cut and have no bad after-effects, as a simple incision of the cornea readily heals.

Dr. M. J. Buck: I can coincide with Dr. James in the use of sharp instruments in removing foreign bodies. I do not need fixation forceps, but by pressing with my fingers above and below the eyeball I can keep the eye perfectly still.

Dr. Morgan distributed to each member a copy of his work on 'Diet for Infants,' for which a vote of thanks was tendered by the Society.

REPORT OF THE BUREAU OF OBSTETRICS.

Dr. M. M. Walker, chairman of the Bureau of Obstetrics, presented his report.

The chairman had assigned the following subjects to the members of the bureau:

I. Birth-time in each Twenty-four Hours.
II. Chloroform in Labor.
III. The Use of Medicated Injections after Parturition.
IV. Improvements in Obstetrics.
V. Treatment of the Navel.
VI. Treatment of the Mammæ and Nipples.
VII. Promotion of Labor by Remedies.

The following papers were presented, accepted and referred.

The use of Medicated Injections per Vaginam, after Parturition, by R. J. McClatchey, M.D.

Chloroform in Labor, by J. H. Marsden, M.D.

Phlegmasia Alba Dolens, by C. Van Artsdalen, M.D.

Treatment of Mammæ and Nipples, Before and After Confinement: Prevention of Mammary Abscess, by C. T. Canfield, M.D.

Birth-time in Each Twenty-four Hours, by M. M. Walker, M.D.

The chairman also presented a communication from Dr. H. N. Guernsey, in reply to a request for an article on The Promotion of Labor by Remedies, from which we extract the following:

"Bearing upon this subject with great force and worthy of all consideration, is the great importance of every woman being treated by no other method than the homœopathic, purely and simply, from infancy until after the child-bearing period has passed. This treatment insures the maximum of health and strength, and consequently the least possible suffering to the parturient woman.

"To affirm that cimicifuga, pulsatilla, or any other remedy, empirically administered, will work an easy labor, is simply hypothetical. Any remedy, when homœopathically indicated, will produce an easier labor than any other not perfectly indicated according to our law of cure."

THE USE OF MEDICATED INJECTIONS PER VAGINAM, AFTER PARTURITION.

BY R. J. McCLATCHEY, M.D., PHILADELPHIA.

The importance to the physician of a thorough knowledge of the science and art of obstetrics, can hardly be over-estimated. An able writer has given his views, on this subject, in the following weighty passage: "A man may become eminent as a physician, and yet know very little of obstetrics; or he may be a successful or distinguished surgeon, and yet be quite ignorant of even the rudiments of obstetrics. But no one can be a really able obstetrician, unless he be both physician and surgeon. And as the greater includes the less, obstetrics should rank as the highest department of the profession."* In confirmation of at least a part of this broad statement, the writer of the present paper states that he has been called in council in cases of obstetrics, by physicians of deservedly high standing in the profession and community, whose knowl-

* Dr. Fordyce Barker, in The Puerperal Diseases.

edge of practical midwifery was that of a mere tyro in the profession, and less than that of a well-furnished medical student in one of the best of our colleges.

With a fuller recognition of the importance of obstetrics, on the part of medical men, more efforts were made at its improvement, in various directions. Not all of them, however, have been really improvements; and it is to be feared that, as fashion has pervaded other departments of medical practice, it has, likewise, entered somewhat into the proposed improvement in the means and methods of the accoucheur. By the term fashion, I here refer especially to the coming into common and frequent use, of some medicine or method of procedure that has been rapidly introduced to the profession, and as rapidly become popular, and highly vaunted in a given disease or class of diseases, and has therefore, almost as rapidly, fallen into almost complete disuse. I can, perhaps, furnish no better example of this, than by citing the case of that article known as propylamin, which, at one time, was regarded in the old school as a "sure cure" for rheumatism; and was, shortly after its first introduction, so largely used that it almost became a question whether the supply of herring pickle might not give out, and the supply of propylamin thereby be cut off.

I refer to this as occurring in the old school of medicine; but do not hesitate to state that it is true likewise, although necessarily in a less degree, in the new school. The remedies proven and introduced by the earliest homœopathists, and especially by Hahnemann, seem still to answer to their indications, as well as at first; but to a number of those more recently introduced, this will not apply. Such facts as these may, I think, be appropriately termed fashions in *materia medica*, or rather in *materies medendi*. It seems possible, and, indeed, probable, that Shakespeare had a knowledge of such medical vagaries in his mind, when he wrote that often quoted direction, "throw physic to the dogs," since he must have had an equal knowledge of the old saying, "every dog has his day."

Through some such means as that just referred to as fashion in medicine, and, no doubt, largely directed and influenced by the introduction and remarkable success of what is

known as antiseptic surgery and Listerism—the chief factor of which is a free use of carbolic acid during and after surgical operations—an *antiseptic midwifery* has been proposed, has achieved some success, and is becoming popular. The chairman of the Bureau of Obstetrics having assigned to me, as a title for a paper, for this meeting, "The use of medicated injections per vaginam after parturition," I propose, therefore, in this brief paper, to refer to these measures of antiseptic midwifery, now becoming fashionable, in order to "call a halt" and inquire whether they are entirely free from danger; and if the paper shall succeed in doing this, and elicit a free discussion of the subject, it will have abundantly fulfilled its object.

Lemmelweis and Braun, of Vienna; Barnes, of London; Barker, of New York, and several well-known Philadelphia physicians, are more directly responsible for the introduction and spread of antiseptic midwifery, although Dewees, of Philadelphia, one of the earliest, ablest and most original of American obstetricians, recommended, in his treatise on the Diseases of Females, that an application of pyroligneous acid shall be used in cases of laceration of the vagina or vulva during parturition; thus, it would appear, anticipating by many years the antiseptic carbolic acid treatment now so freely used. (I may remark, in passing, that it is not creditable to the American medical profession that no monument, so far as I know, marks the spot where this great man and renowned obstetrician lies buried.)

What is meant by the term antiseptic midwifery will be expressed more clearly and accurately, I think, by the term the prophylaxis of puerperal fever, for it is to the prevention of that dreaded disease this kind of treatment is chiefly addressed. And, according to reports and statistics already published, of its results, especially in hospital practice, its general adoption seems to be warranted, if not absolutely demanded.

In the obstetrical wards of the Vienna Hospital, under the care of Prof. Carl Braun, after the delivery of the placenta, which is generally accomplished by kneading and pressing on the uterus, "the vagina is well washed out, by means of a

fountain syringe, with a two per cent. solution of carbolized water; after which the linen is changed, and the woman transferred to another room, where she remains nine days. * * * The abdominal binder is not used."*

The antiseptic method in midwifery, however, is carried to much greater lengths than this. Dr. Fancourt Barnes, in the British Lying-in Hospital, not long ago, delivered all his patients under the carbolic spray. All washings, syringings and examinations are done with carbolic solution, and the "carbolic acid spray (1 to 80 aq.) was continually playing in the ward."

Quite a variety of antiseptic materials are used, as well as carbolic acid, such as salicylic acid, thymol, permanganate of potash, et id omne genus. But I find that almost without an exception, these disciples of Listerism denounce *intra-uterine* injections. "Frankenhauser (1879) considers the prophylactic intra-uterine injections post-partum, the cause of many unfavorable terminations, especially as the cause of a considerable rise in the temperature. He justly says, we run the risk of thereby introducing air, and are never sure of washing away all the putrefying material from the uterine mucosa. He objects to intra-uterine injections, as well as to the introduction of the hand into the uterus, unless absolutely unavoidable. If the latter becomes necessary, he does it under the carbolic spray." He says: "I have had no untoward symptoms from intra-uterine injections with salicylic water in cases where I had to introduce the hand into the uterus, for adherent placenta, turning, atony, and post-partum hæmorrhage; but I object to the indiscriminate use of disinfectant solutions after normal labor, as an unnecessary and meddlesome procedure."†

It will thus be perceived, that while antiseptic injections post-partum and other antiseptic measures are recommended by those in authority in obstetric procedure, they are no less heartily condemned and pronounced dangerous by those well qualified and entitled to speak with the voice of authority.

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*Dr. J. B. Buchanan, in the *Southern Practitioner*.

†Dr. Rudolf Tauszky, in *Medical News*, Aug. 19, 1882.

In view of the high commendations that have been bestowed upon these measures, I have very great hesitancy in even *apparently* attempting to belittle their value and discourage their use. I do not wish to be misunderstood. Having, as I think, a due and proper appreciation of the benefits of Listerism, and even of "antiseptic midwifery," under certain circumstances, I deem it my duty, and my privilege as well, to call attention to the possibility of the abuse of these measures, through their becoming popular and fashionable.

I do not propose or intend to discuss the etiology of puerperal fever, or to examine as to what is included in that very comprehensive term, that, like the term "Bright's Disease," covers a multitude of ills; whether it be due in all cases, or even in most cases, to the absorption of a contagious or infectious *materies morbi*, communicated from without by the medium of the hands, instruments, etc., of physicians or nurses; or, the result of auto-infection, the poison being generated within the genitalia of the lying-in woman, and in consequence of her post-partum condition. I feel entirely free to acknowledge that in cases where there is reason to apprehend puerperal septicæmia, or even where it has commenced its fell work, the use of antiseptic measures are commendable and valuable; but parturition is to be looked upon as a natural and physiological (not pathological) process, and needs nothing more, usually, than time, rest and cleanliness, to prevent abnormal conditions; neither is the womb, just emptied of its contents, and the vulvo-vaginal tract, to be regarded as a surgical wound, or treated as such, by the means of antiseptic surgery—whether by injections of carbolized water, of thymol, of salicylic water, etc.

In cases of slight lacerations of the parts involved—a nearly constant occurrence in primiparæ—it is not necessary, in my opinion, to resort to antiseptic measures, since almost always within three days after delivery, such slight lacerations and abrasions will have healed, by first intention, before any septic material has had time to be formed.

Antiseptics as a class, and carbolic acid, particularly, are recognized as irritants, and capable of exciting even a high

degree of inflammation; and their absorption may give rise, in addition, to systemic disturbances of a very troublesome and perhaps dangerous kind. Thus, the mischief their use was intended to prevent, may be brought about, even to the loss of life. Antiseptic measures, I hold, may be resorted to in exceptional cases; as for instance, in protracted labor, and where there has been impaction of the head for some time, and injury to the soft parts; and especially should the lochia become markedly offensive, and it is known that portions of the placenta or membranes have been left behind. Here, antiseptic injections may be very serviceable, and the possible harm is counterbalanced by the probable good. Every accoucheur of experience, however, has seen cases of this kind, as I have, when the antiseptic midwifery was unknown, that yielded kindly to rest, cleanliness, the external and internal use of arnica, and such homœopathically indicated remedies as kreosotum, pulsatilla, rhus, etc.

In conclusion, I would simply say that I wish to call attention to and discourage the abuse of antiseptic midwifery, not its proper and discriminate use, as it may be very serviceable in a few cases, and even be the means of saving a valuable life.

CHLOROFORM IN LABOR.

UNDER WHAT CIRCUMSTANCES AND HOW TO BE USED.

BY J. H. MARSDEN, A.M., M.D., YORK SULPHUR SPRINGS.

It was certainly one of the most painful incidents of my early practice, to see a young woman in her first confinement, writhing in prolonged agony, and begging for relief which I was unable to furnish. I almost myself despised the only consolation I could offer her, that her sufferings would soon terminate, and the recollection of them be lost in joy "That a man is born into the world." In such agony minutes are lengthened to hours, and hours to days. I may perhaps be told that had I properly understood the specific power of drugs I would not have been so powerless as I supposed my-

self to be. This may be so, and I am inclined to believe that with my limited knowledge, I have occasionally succeeded in changing the character of spurious pains, rendering them more effective and more tolerable. I would therefore not discourage efforts of this kind, nor investigations in this direction. It may, however, I think, justly be doubted whether any agent not capable of annulling sensibility, will ever be found adequate to the relief of the intense torture arising from the passage of a tightly fitting head, or the efforts of the womb to distend an unyielding os or to correct a mal-position of the child. So confirmed is my unbelief upon this point that I think nothing but the witnessing of the repeatedly successful efforts of one more skilled than myself would lead me to change my views. "Except I see the nail-prints in his hands, and thrust my hand into his side, I will not believe." Such is my own incredulity. I know it is very easy to speak, or even write in a text-book the contrary.

Under circumstances such as above detailed, it is not surprising that I should have hailed with joy the first announcement of the discovery of Prof. Simpson, that chloroform has the power completely to annul the pains of childbirth. I read with profound interest the discussion that followed between Dr. Simpson and our own eminent Prof. Meigs. Great as was then my confidence in the latter, and great as is still my veneration of his memory, the arguments of the former, I thought clearly preponderated, and I resolved forthwith to test the alleged discovery. I at first used a mixture of chloroform and ether, perhaps one part of the former to two of the latter, but the results obtained were always unsatisfactory. I did perhaps no harm, and certainly very little good. I however, persevered in my efforts to produce anæsthesia—gradually increased the proportion of chloroform, but never reached what I aimed at until I used these articles in equal quantities. In some cases even this was not sufficient, and more than twenty years ago I abandoned the use of ether altogether. In extremely doubtful cases, if I think it necessary to use an anæsthetic at all, I prefer a mixture of alcohol and chloroform.

I have already so often written and spoken upon the use of chloroform in labor, that it is only in deference to the judgment of our highly esteemed chairman of the Bureau of Obstetrics that I now venture to tax your patience with anything additional upon that subject, which I wish, moreover, to present under the limitations designated by the title of this paper.

As in regard to the use of any agent used for the relief of human suffering, there are circumstances which are supposed to demand or indicate its employment, and others again which contra-indicate its use, so will it also be found in regard to chloroform. For instance, if we find a labor progressing favorably, the action of the womb regular and vigorous, the pains normal in regard to severity, and such as the patient bears without any peculiar restiveness or complaint—when she is brave and not abnormally sensitive to suffering, and when the labor is found to progress favorably, an anæsthetic is not needed—the desired end will be reached without it. We thus avoid the expense of the drug and the trouble of administering it. What is still perhaps more important, should the patient meet with any mishap during her confinement, we can stop the mouths of those who attribute all such accidents to the use of chloroform—forgetting, or overlooking the fact, that such things occasionally happened before chloroform was known. I am very certain I once escaped such reflections in a case where I purposely avoided its use, and which was followed by intense post-partum hæmorrhage—an accident which in the opinion of those who know least about it, is almost sure to follow the use of chloroform.

There are certain constitutional conditions or peculiarities which perhaps contra-indicate the use of chloroform. For instance, we sometimes meet with women who are extremely cowardly. They are afraid to inhale chloroform lest they should die under its influence. If given to them, as soon as they experience the vertiginous sensation, perhaps common to its first effect, they start up in alarm, sure that they are already "in articulo mortis," and usually refuse to take any more. In such cases the administration should not be persis-

ted in, if there be no necessity demanding it, beyond the mere relief of pain. Fear has a most disturbing influence upon the heart and the powers of vitality generally, and this added to the slight, in some cases considerable, depressing action of the chloroform, might cause accident. If the anæsthetic be still deemed necessary, it had better be preceded by, or combined with alcohol.

Again, there are women not devoid of courage in ordinary matters, but who have an insuperable horror of passing into a state of artificial unconsciousness. They feel no repugnance to resigning themselves to profound natural sleep, so deep it may be as to be awakened with extreme difficulty till the demands of nature are satisfied, but they cannot consent to be brought into a similar condition through the agency of an anæsthetic. In such a case I would not insist upon the use of chloroform unless the patient's safety or interests should seriously demand it; not that I would apprehend any special danger, but because, if any unpleasant consequence should follow, the responsibility would be a most unpleasant one. It has been thought by many that chloroform is contra-indicated by excessive preceding hœmorrhage. This seems somewhat reasonable from a consideration of the great reduction of heart-force usually following the loss of blood. I have not myself had occasion to use chloroform with a patient exhausted by hæmorrhage excepting once. It was then sparingly given, and I saw at least no immediate bad effects. Dr. Ringer, however, speaks very positively of its safety in such cases—judiciously given, of course, implied. It may be, however, most prudent to avoid its use under such circumstances unless some urgent requirement demand it.

Disease of the heart is by many considered as positively forbidding the employment of chloroform under any circumstances whatever. It is true that some, perhaps we should say relatively many, of the fatal cases in surgical practice have been found with fatty degeneration of that organ in a more or less advanced stage. Fortunately, in obstetrical cases we have not been able to determine by post-mortem examinations how the truth stands, and this from the want of the ma-

terial—subjects have not been furnished. I have several times given chloroform, mixed with alcohol, to a patient who is a great sufferer, and whom I very strongly suspect to be the subject of fatty degeneration of the heart. This has thus far been done without unpleasant consequences, and even without any symptoms causing alarm or special anxiety.

Allowing the foregoing contraindications all the consideration they merit, we would say chloroform should be used in all cases of extremely painful labor, from whatever cause this may arise. It is especially appropriate to many cases of first labor, which are very prone to be tedious and painful. This agent not only soothes the usual nervousness, calms the anxieties and annuls the pains of primary labors, but it expedites their progress by the relaxation of tissues, which almost uniformly follows its skillful use. I would, for instance, scarcely desire a more efficient agent to relax the rigid and unyielding os uteri, than deep anæsthesia from chloroform. The same may be said with almost equal propriety of the unyielding perinæum. I have long thought that, if chloroform were more frequently used to the extent it ought to be, the art of the surgeon in repairing these damaged structures would be considerably abridged, and the ill health and discomfort arising from such accidents greatly diminished.

Since I commenced the writing of this paper, I have met with a beautiful illustration of the justness of the preceding remarks, in addition to many in my earlier experience. On the evening of the 17th of June, 1882, I was called to attend a young woman in labor, to whom I was then an entire stranger, having never, so far as I know, seen her before. Primipara, of small stature, dark complexion, dark hair and eyes, and of Teutonic descent. On my arrival, her pains were as yet infrequent, not severe, and borne without complaint. Upon examination I found the os uteri high up, margin thin and corded, and dilated to about three-fourths of an inch in diameter. I immediately commenced the administration of actæa rac., a dose about every twenty minutes. Dilatation of the os followed, until it reached the diameter of our trade dollar, or a somewhat greater. It was still tensely corded in the margin,

and at this point distension ceased, and the remedy seemed to have no further influence. The pains increased in severity, but without perceptible effect. The membranes became tense within the os, but did not protrude so as to exert a wedge power. I tried to effect dilatation by gentle manipulations with the finger, but although I could easily stretch the os by force, it immediately returned to its former position. This state of things continued for hours. Finding the membranes not disposed to protrude, I ruptured them, hoping the pains upon the discharge of the waters would become more forcing, and the wedge power of the head more effective. In this anticipation I was also disappointed—all remained in *statu quo*, except that the suffering of the patient rapidly increased, and apparently her endurance in an inverse ratio rapidly declined, so that she now, from extreme sensitiveness, seemed to repress the action of the womb.

I stated to her and her friends the nature of the difficulty, and asked her whether she would not like to take something to relieve her sufferings. She at once understood the reference to be to chloroform, and was at first very positive in her refusal—said her mother had died of heart disease in labor (without chloroform); that the doctor said *she* had heart disease, too, and should never take chloroform ; that it was dangerous, etc. I told her that, with all due deference to the doctor, he, perhaps, did not know what he was talking about —that I would first examine her heart—that the danger of chloroform in labor, when skillfully managed, was so little it was not worth taking into account. Upon auscultation with the unaided ear, I found her heart-beat characteristic of perfect integrity, and told her so. She yet demurred, while still increasing suffering plead eloquently for relief.

Not wishing to press the matter further, as I supposed the difficulty would be relieved by the natural powers, sooner or later, I did not know when, and at what cost of suffering it might be, I told her the choice lay with herself—if she could stand it, I presumed I could also, but I could not promise her a speedy termination to her suffering. I have known such cases before the introduction of chloroform, to persist for sev-

eral days. I had no other reliable remedy within reach or, of course, I would have tried it.

At this juncture of affairs, I retired to a distant part of the chamber to rest, when I observed an old lady who was present, with whom in her child-bearing days I had satisfactorily used chloroform, and with her daughters since, and who, "mirabile dictu," are still all living and well, take up the cause for me, and so successfully, that the patient soon sent for me to do as I had proposed.

I first endeavored to allay her apprehensions and gain her entire confidence, which I think she readily yielded. Under the proper management she gradually and beautifully passed into a sweet and quiet sleep, equally oblivious of her past suffering, and unconscious of her present condition. The pains forthwith changed their character. From being short and spasmodic they became long and forcing. I knew they were effective, and with a conscious feeling of triumph, told the interested bystanders that we should soon have a different state of things. Upon an examination half an hour after the commencement of inhalation, the head had fairly escaped the os uteri, and had fully entered the superior strait, the perinæum was satisfactorily relaxed, all the parts abundantly lubricated with mucus, and the labor speedily terminated in the birth of a female child, at full maturity, and of good size.

I now ask, in the name of common sense if not of science, what humane man, in the enjoyment of ordinary sanity, would object to such a measure under such circumstances?

The patient afterwards declared she had felt no pain from shortly after the commencement of inhalation, and made a very humble apology for what appeared to be her obstinacy, and also her friends asked me to excuse her. I replied I most freely excused the patient, but could not excuse men, who, bearing the sacred title of physician, used their influence as such to prejudice those who had no opportunity of knowing better, against a measure so productive of relief, thus shutting out many from the use of one of the greatest boons sent by God for mitigating or wiping out woman's curse.

Since pain and suffering have been the heritage of the hu-

man race (and when have they not?), it has been an inquiry of the profoundest interest how we may lessen, if not annul, their existence. This especially applies to the often unutterable pangs of childbirth. If the physician has any mission whatever at the bedside of the parturient woman, it is surely not to hear unheeded, and with stoical apathy, her agonizing shrieks and tearful appeals for relief. On the contrary he is there to secure, if possible, her immunity from the perils to which she is necessarily exposed, and then, so far as is consistent with this, to reduce to a minimum the agonies of childbirth. Thank God! he has given us an agent in chloroform promotive of both these ends. In many cases, which time will not allow me to specify, it greatly contributes to the safety of the patient, and in all, if properly administered, it either wholly annuls, or greatly diminishes, the amount of suffering.

In general, chloroform should be given in anticipation of severe or important obstetrical operations. It greatly facilitates the successful application of the forceps, by removing the apprehensions of the patient, by rendering her insensible to additional suffering which she might otherwise experience, and thus securing her more complete passiveness in the hands of the operator. It is scarcely worth noticing the objection that when deeply anæsthetized the patient may be seriously injured by the blades, and not in condition to give us information. The simplest way of avoiding this is to take the necessary care not to injure her. In most cases the operation with the forceps is an easy one, unless made otherwise by a complexity of rules hard to be understood. If in the introduction of the blades, the points be kept closely in contact with the fœtal cranium, the maternal structures will not be included in their grasp; and laceration and contusion are to be avoided by extracting slowly and applying force in the proper direction.

In podalic version chloroform often furnishes an important aid. This is especially true in reference to those cases, not unfrequently encountered, wherein we find an arm prolapsed, the shoulder crowded down into the pelvis, and the waters principally or wholly drained off. If turning here be eligible

at all, it should not be attempted, except when the patient is deeply anæsthetized; indeed, without this preliminary procedure, it is often impracticable.

Finally, when we wish to give nature a fair chance in preference to interposing the resources of art, and especially where such resources may seem inapplicable, as in some cases of mento-posterior positions in face presentations, the patient should be kept deeply under the influence of chloroform, not only to abolish or at least diminish suffering, but to avoid the fearful consequences of shock from prolonged and intense agony.

A case, to me, of great interest in illustration of this principle, will be found in the February number, 1882, of the *American Homœopathic Journal of Obstetrics.* The power of chloroform to save from extreme exhaustion, and, therefore, to avert not only immediate shock, but others of the most serious consequences of childbirth, is known and appreciated to its full extent, only by those who are in the habit of using freely that anæsthetic in difficult labors.

But we have proposed to speak also of the methods by which chloroform had best be given—its safest and most successful administration—having in view the object at which we specially aim. In different cases this may very properly vary. When we deem it proper to use the anæsthetic in such as are not characterized by much suffering, simply induced to do so by the entreaties of the patient who may be deficient in fortitude and patience, but a very moderate impression may be all that is necessary. Indeed, some who timidly use an anæsthetic, do not wish to go beyond the point at which the patient loses her consciousness. Such, I believe, usually prefer the use of sulphuric ether, with which they are perhaps generally able to accomplish this object, namely, a slight benumbing of sensibility, while the patient is cognizant of all that is passing around her. This probably satisfies the patient who would not suffer much without any interference whatever, but is, I should think, entirely inadequate where there is intense suffering. Indeed, many still think that anæsthesia in the case of the parturient woman, carried up to or beyond

the entire loss of consciousness, is fraught with imminent peril. With the proper selection of the subject, and the necessary care, experience has abundantly proven this to be entirely fallacious.

The safety of anæsthesia in cases of labor, I apprehend, depends not so much upon the degree of its intensity, as upon the manner in which it is produced. It is well known that great changes of condition suddenly effected are far more injurious to, and destructive of, organic life, both in plant and animal, than changes of equal extent gradually produced. The gardener carefully protects his plants when they are greatly chilled, from the direct rays of the sun, producing sudden warmth. We avoid, if we are prudent, presenting the frozen foot to a flaming fire. On the contrary, we had better immerse it in cold water, or even snow. The past winter, though a mild one, has been remarkably destructive of vegetable life, and human life also in cases of the aged and infirm. I can in no way account for this, except by invoking the fact, that changes of temperature were very frequent, of great thermometric range, and generally very sudden. If we wish a living organism to pass through great changes uninjured, we must seek to modify those changes so as to make them as gradual as possible.

Here, in my humble opinion, we find a most important element in the safety of anæsthesia in midwifery. Let us bring our patient gradually, very gradually, under the influence of chloroform, carefully watching the process, and in suitable cases, and when desirable, we may keep her, apparently, upon the very confines of death for any desirable length of time.

Various methods have been proposed for the administration of chloroform in midwifery, but rather with a view to its *safety* in the abstract than to the *gradual* induction of its effects. Dr. Nichols, of Montreal, Canada, recommends inhaling from a wide-mouthed vial, claiming that thus consciousness is retained. I attended a patient some years ago, who told me that in a previous confinement which had taken place in Kansas, and in which an English physician had attended her, she inhaled the chloroform dropped into a tumbler, which

she held in her own hand. I inferred the effect was not very intense.

The same woman again came under my care quite lately, when I permitted her to inhale from a wide-mouthed vial, partially filled with absorbent cotton to prevent the chloroform from spilling. The result was unsatisfactory, and abandoned for my usual method.

Judging from what is said and written by many, perhaps most practitioners, the retention of consciousness by the patient seems to be a *sine qua non* in their estimation, in the administration of chloroform in midwifery. This would be right, if on this side of that point all were safety, and on the other side, all danger. But the "quad erat demonstrandum" of this proposition has by no means as yet been reached. A woman loses her consciousness in profound natural sleep, and wakes again uninjured, indeed refreshed. Nor does her husband by her side, seeing her in that condition, feel any alarm for her safety.

The gradual induction, then, of anæsthesia in midwifery, we repeat, and would emphasize, we regard as an important element in its safety. Consequently the method of administration best suited to secure this result, is what we ought on all occasions to practice. This method, with me, has always been a very simple one, for which I claim no originality. After loosening the patient's clothes, if tight, so as to allow free action of the muscles of the chest, lowering the head so as to give a somewhat downhill grade for the blood to traverse in order to reach the brain, and so adjusting her general position as to make her as comfortable as possible, I withdraw the cork from the bottle, place over its mouth a folded linen handkerchief—tilt the bottle suddenly, and thus imbibe in the handkerchief, perhaps a fluid drachm of pure chloroform. This is held over the patient's mouth and nose about two inches distant, to be gradually approached according to effects, but never closer than the end of the nose, and not so close if that organ be a very short one. Of course chloroform is to be again and again supplied, as it is exhausted by inhalation and evaporation. If the action of the heart at first seems feeble

or irregular, I commonly mingle some alcohol with the first portions used, watching the pulse which, if not so before, generally becomes good. If the mixture do not fully produce the desired effect, I then substitute for it pure chloroform. By such methods, and with such precautions, the danger of chloroform in midwifery is reduced to a minimum, which, like a quantity in mathematics infinitely small, may be rejected in the process without affecting the result.

I need hardly say, in conclusion, that inhalation is not to be kept up continuously and uninterruptedly. When we have reached the degree of intensity at which we aim, this may easily be maintained by applying the handkerchief again and again upon the sign of recurring pain. Nor need it be done at every recurrence. The patient often manifests signs of suffering when she is wholly unconscious. Close observation and a little experience, will soon enable us to satisfactorily and safely accomplish every desirable purpose.

PHLEGMASIA ALBA DOLENS.

BY C. VAN ARTSDALEN, M.D., CHELTEN HILLS.

This is a disease that has been known to the profession since 1603, when it was first described by Roderick a Castro, and, notwithstanding the frequent opportunities of observation that have since been afforded, some doubts as to its exact nature still exist. Latest research, however, seems to establish that it is primarily dependent upon some special alteration of the blood: a crasis favorable to intravenous coagulation. This alteration of the blood is usually met with in the puerperal state, and in cachetic and chlorotic individuals. Under these conditions, there is a diminution of the red globules, an increase of the fibrin and serum, and a consequent tendency to spontaneous coagulation; (the obstruction of a vein and a phlegmasia); when such is the case, the disease may attack either extremity, and is characterized by acute pain, swelling and a shining white appearance; the veins may be felt hard and cord-like. Following delivery, the phlegmasia may appear

as an extension of uterine phlebitis; it then makes its appearance in from three days to three or four weeks, the exciting cause commonly being the impression of cold. The patient is usually irritable, depressed in spirits, with a sense of great weakness, complaining at first only of transient pain in the region of the uterus. Soon she is seized with acute pain in the calf of the leg (generally the left), gradually extending up along the internal part of the thigh to the groin; the limb swells, becomes tense and hot, rather pale and shining. Most frequently the swelling proceeds upwards, but sometimes from the groin downwards. In some cases the size of the limb is enormously increased; the inguinal glands swollen and tumefied, and the abdomen distended and sore; there is a degree of tenderness, well marked, along the course of the inflamed vessel; the temperature of the parts is but slightly increased; it not infrequently happens that the sound limb participates in the affection before the other is well. During the acute stage there is an utter inability to move the limb. Constitutionally the symptoms vary in intensity; the pulse becomes rapid, though weak; the tongue white and coated; the thirst great, and the countenance pale; there is loss of appetite, derangement of the bowels, and turbid urine. The internal genitals are tender, the lochia diminished and offensive. In the course of ten days or a fortnight, these symptoms subside, and the affection becomes chronic and local. The duration of an attack is about three weeks, at the end of which time the œdema gradually disappears, and the patient regains the use of her limb. Sometimes several years elapse before the circulation is perfectly re-established, and the cellular tissue is then thickened, rather than œdematous, as is shown by its having regained its elasticity to a great extent, and by its not retaining the print of the finger when pressed upon. The least fatigue, however, occasions pain, and induces embarrassment in the circulation of the affected limb. Now, should the obliterating clots break up in fragments, there is great danger of pulmonary or cardiac embolism, causing sudden death from syncope or asphyxia; death, however, may be caused by suppuration or gangrene, or by exhaustion.

The following notes of a case may, perhaps, possess sufficient interest to justify me in submitting them to the Society:

Mrs. B. Tall, slender, dark hair, extremely nervous temperament; at menstrual periods there is a perceptible swelling of both eyes, which varies, however. She has a low, deep cough, which is entirely gone during menstruation; voice is broken; frequently has vicarious menses. She is now the mother of two boys, who were fat and healthy at birth. Previous to the birth of the last she was unusually well, but had a few varicose veins.

January 2d, was called to see her. She was then about three months pregnant, and was suffering from neuralgia, this attack ending with jaundice. In about four weeks she had neuralgia again.

April 9th, she was spitting dark, frothy blood; very nervous, slight diarrhœa; retention of urine; great tingling in the feet, worse in the left; fœtus very active, causing pain and distress.

April 10th. Patient better.

April 11th. Nausea and ringing in the ears.

April 12th. Patient could feel no motion of the fœtus; had great nausea, face swollen, incontinence of urine, soreness and weight over pubes.

April 13th. Some leucorrhœa, but patient improved, which continued until April 17th, when I found her on hands and knees, from severity of a bearing-down pain. She had also cramp in neck; leucorrhœa changed, now glairy and bloody; pulse rapid, tongue bright red, temperature normal.

April 19th. Had slight hæmorrhage from vagina, severe tingling in the feet, chilliness, nausea, vomiting, pain in back, the left leg very cold. At 11 P. M. she had a convulsion.

April 20th. At 10.30 A. M. she was delivered of a dead child, which, from appearances, had been dead for several days. In the evening seemed to be doing very well; lochia normal.

April 21st. Breasts filled with milk.

April 29th. There came under the left knee a hard lump as large as a goose egg, accompanied with chilliness, headache, nausea, oppressed breathing, pain in calf of the leg, in the back

and hip; a film before the eyes, so great that she could not distinguish her sister across the room; this blindness lasted five days, when the left leg began to swell; first, at the upper part of the thigh, surrounding the limb like a hoop: then the foot commenced, the two swelling continuously until they met. The greatest swelling was in the lower part of the leg, up to the knee. The whole limb was about the same dimension, from body to foot. Hard, cord-like streaks could be readily felt above the knee; pressure would give extreme pain; there were some varicose veins on the thigh; the vulva was swollen and tender: the patient was unable to move the limb. From the time the swelling began there was a diminution in the discharge of urine, and it was changeable in color, the darker the color, the more voided; an analysis gave specific gravity 1022, acid in reaction, one per cent. albumen. Inguinal glands of the right side were swollen, the pulse quick, no appetite, and the tongue had become white and coated; the patient lost flesh rapidly, was restless and could not sleep. The limb was of a leaden hue, and at no time did it pit on pressure.

TREATMENT OF THE MAMMÆ AND NIPPLES BEFORE AND AFTER CONFINEMENT: PREVENTION OF MAMMARY ABSCESS.

BY MRS. C. T. CANFIELD, M.D., INDIANAPOLIS, IND.

The management of lactation and its annoyances is no small part of the duty of the obstetrician. Too frequently the nurse, self-appointed or otherwise, appears to consider it her special privilege to attend to this important function, and to resent all interference from the medical attendant. As a consequence of this ill-timed supererogation, conditions may obtain which will give rise to distressing results.

The expectant mother should be under the supervision of her medical attendant. Much suffering can be prevented by persistent and systematic treatment previous to confinement. The adage that "An ounce of prevention is worth a pound of cure," can be no better exemplified than in the affections now under consideration.

It is a generally accepted proposition that sore nipples, whether classified as erosions, excoriations, fissures or cracks, furnish the starting point or *primæ causæ* of most cases of mammary abscess. This granted, it follows that to avert the latter we must prevent or cure the former by any means which experience or science has placed in our hands.

The prophylactic treatment should commence as early as the sixth month of pregnancy. All corsets or waists that unduly press upon the mammæ or nipples should be prohibited, otherwise the nipples may become flattened by the pressure, giving rise to fissures, or it will produce greater depth to the natural fissures. The mammæ should be bathed with cool water, night and morning. When wiped dry, the nipples should be manipulated by the thumb and fingers for a full minute each, unless nausea or faintness appears (which not infrequently happens). It will then be necessary to omit all further operations for the time, and resume again the following morning or evening, as the case may be. Should the nipples become tender, bathe them with the following: Brandy and water, aa ℥j; borax pulv., ʒj. This will soon remove the sensitiveness. This course, faithfully carried out, will prepare the nipples for the easy performance of their normal functions. It will greatly lessen the suffering in the lying-in chamber, and abbreviate the care and anxiety of the physician.

After confinement, when mother and child have rested, usually within three hours after its birth, the babe should be applied to the breast to draw out the nipples, and for other obvious reasons which do not come within the province of this paper. When the child is removed, the nipple should be bathed with a weak arnica solution, then carefully dried, and powdered starch or finely pulverized loaf sugar dusted over it. This should be repeated whenever the child is allowed the breast, for the first three or four days, and longer if necessary.

In case the mother has previously used astringent lotions, arnicated cosmoline, or the arnica jelly of the pharmacies serves a good purpose in softening the nipple and preventing cracks. Tincture of calendula dropped upon loaf sugar, which has previously been moistened with water, in some cases proves

curative, especially if there is a tendency to ulceration. In place of the above, a weak solution of the muriate of hydrastis in glycerine may be used. The compound tincture of benzoin is recommended. It should be applied with a camel's hair brush, giving several coats, thus forming an artificial cuticle. A nipple shield through which the child can nurse sometimes renders good service, but is usually unsatisfactory.

Should the child have the thrush, it will be necessary to wash the nipple carefully after each nursing, with a solution of boracic acid or sulphite of soda.

Should the calendula fail in ulcerated nipples, one must resort to a solution of nitrate silver, twenty grains to the ounce. After applying it, the nipple should be exposed to the direct rays of the sun until the surface turns black. Cracks at the base of the nipple should be touched with a finely pointed pencil of nitrate of silver drawn lightly through. Whenever it becomes necessary to resort to the last named remedy (which should not be done until all other means prove useless) nursing should be prohibited until the healing process is complete. As a last resort, or should the irritation extend to the gland, threatening mastitis, the child must be removed from the breast entirely.

From the foregoing, one must admit that careful and proper attention to the nipples is one of the principal factors in the prevention of mastitis, under ordinary circumstances. But occasionally, I may say frequently, from malformation of nipples, loss of child, ill health of mother, or other good and sufficient reason, it is found impossible for the normal functions of the gland to be performed. The question now arises, how shall we prevent undue engorgement, and the too frequently resulting inflammation? The treatment pre-eminent above any other, is perfect rest or quiescence of the gland. To compel this condition, compresses should be applied to the entire surface of the mammary gland, and retained in place by a close-fitting bandage. This should be applied within twenty-four hours after parturition, and should not be removed within two weeks. This treatment is usually all that is required, for this particular class of cases.

Whenever practicable, the mother should always nurse her babe. The infant should be applied early to the breasts, to empty them and prevent engorgement. Belladonna cerate may be used to bathe them if they become caked; or, if the milk is abundant, the camphorated oil or cosmoline may be used instead. Either remedy should be applied warm, the nurse very gently rubbing the glands with her hand from the base toward the nipple. This is more efficient if performed just previous to applying the babe. The mammæ should be lightly covered with the fine absorbent cotton, which is greatly superior to the heavy flannel so generally in use.

Should symptoms of inflammation appear, a hot linseed poultice, made with a weak solution of phytolacca, will many times abort the threatening abscess. Some prefer cloths wrung out of hot water, to which the tinct. of phytolacca has been added. The proportion is as follows: Hot water, one pint; phytolacca tinct., a half ounce. When the latter is used, my custom is to cover with hot plates, and only disturb the compress when dry, changing the plates whenever they become cool.

Notwithstanding all the foregoing local and mechanical methods and appliances, our principal dependence must be upon the careful selection and administration of the indicated remedy. Those most frequently required are: aconite, arnica, belladonna, bryonia, calcarea, calendula, graphites, hep. sul., hydrastis, mercurius, pulsatilla, phosphorus, sulphur and silicea.

BIRTH-TIME IN EACH TWENTY-FOUR HOURS.

BY M. M. WALKER, M.D., GERMANTOWN, PHILADELPHIA.

"There is a tide in the affairs of men
Which, taken at the flood, leads on to fortune."
—*Shakspeare, Julius Cæsar, Act iv. Sc.* 3.

There appeared in the *Hahnemannian Monthly*, for August, 1865, an article by Prof. C. G. Raue, M.D., entitled 'Influence of the Tide on Parturition,' in which he demonstrated that a majority of children were born on the incoming, or flood tide. In Dickens' David Copperfield, chap. xxx, we find that "People can't die along the coast, said Mr. Peggotty, except when the tide is pretty nigh out. They can't be born unless it's pretty nigh in, not properly born, till flood."

The subject of tides is well written up in all the encyclopœdias, and neatly illustrated in one of them, Johnson's, which illustrations I here reproduce, in order to explain more thoroughly the tides in relation to the sun and moon. Prof. Raue has carefully described the tidal waves from the standpoint of his article, and assigned them a secondary place among the influences of childbirth, while he attributes the more probable causes of the promotion of labor due to the attraction of the sun and moon. These engravings, with quotations from his paper, will demonstrate more clearly all these influences, while the accompanying tables of two hundred cases, which have been reviewed by him, will show how frequently *these* children were born, during the *incoming* or *flood* tide.

"The *flood* commences at the moment when the moon passes over the meridian; or, as the almanacs say, when the moon is *south*, and continues until the moon reaches half way to the other side, or is about setting, which takes about six hours' time. From now the *ebb* commences, until the moon again passes over the meridian opposite, consuming again the space of six hours nearly. Thus we have, in the course of a lunar day, or twenty-four hours and fifty-four minutes, twice flood

and ebb, which are called *lunar tides.* But even this calculation did not meet my expectations, I had still left another factor, which changes seasons, times and tides—the *sun.* As the moon, by her attraction causes a periodic fluctuation in the fluid covering of the earth,—in water and air,—so also does the sun ; and we have, in like manner every day, twice flood and twice ebb, caused by the *sun's* attraction, and called *solar tides.* The solar flood, too, commences when the sun passes over the meridian ; thus every day at 12 o'clock noon, and 12 o'clock midnight, and the solar ebb follows from 6 o'clock P.M. until midnight, and from 6 o'clock A.M. ending at 12 o'clock noon. Now, then, this makes the account a little more complicated. The *solar* tides, though, keep regular hours, but the *lunar* tides do not—setting in *later* every day to the amount of about 50 minutes ; thus, every second flood twelve hours twenty-five minutes after the commencement of the first flood, because of the lunar day lasting twenty-four hours fifty-four minutes."

" We must take, then, a higher stand ; we must lay as a basis for our observations not the *effect,* the rise and fall of the water, but the *cause* of this—*the changing positions of the sun and moon in relation to our earth,* and then it is a basis upon which observations can be made in any and every corner of this globe. I shall put, then, as a problem, the popular saying into the following shape :

Fig. 1.

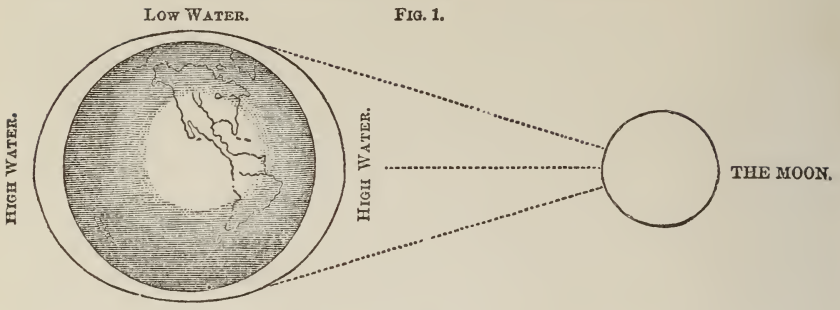
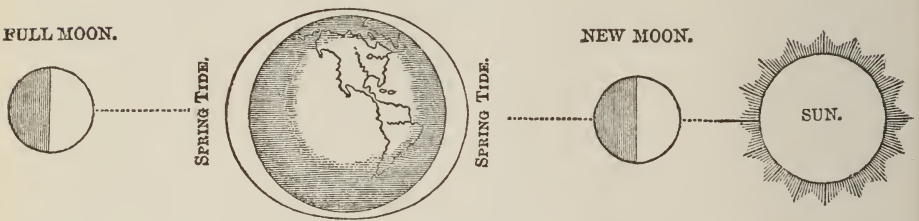


Fig. 2.



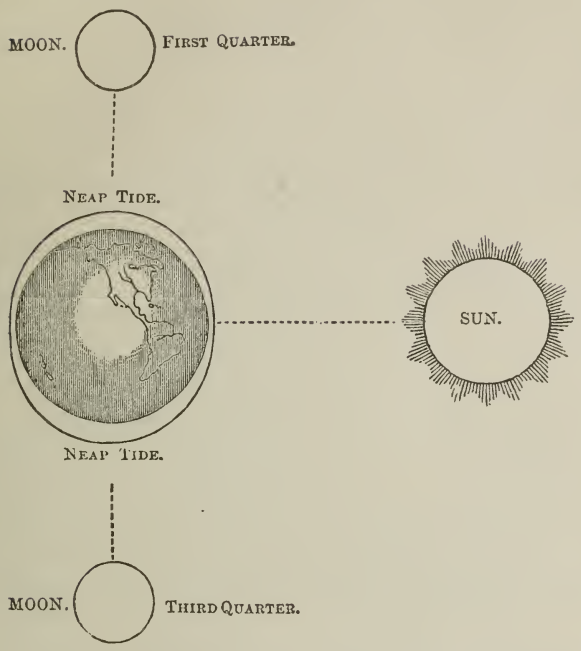
"1. At the time of new moon and full moon, birth does not take place except within six hours from the time when the moon passes over the meridian, that is, during lunar and solar floods combined.

"2. After new moon to the first, and after full moon to the last quarter, however, birth may take place *previous* to the moon's passage over the meridian in the time in which the sun precedes the moon in passing over the meridian, that is, during a solar flood which precedes the lunar, and into which latter it merges."

"3. After the first quarter to full moon and after the last quarter to new moon, birth may take place *subsequent* to the moon's passage over the meridian, and even subsequent to her setting or rising, in the time in which the sun follows the moon in passing over the meridian, that is, during a solar flood which joins or follows upon the lunar flood, which latter is still going on or has ceased already."

"I shall give now some hints as to the practical application of these rules. When I am called to a lying-in woman, my first thought is, where stands the moon to-day? The sun's position is always known. I look into the almanac and find June 10th, 1865, under "Moon South" 12 h. 40 m. A. M. It is then to-day one day after full moon; and supposing the call

FIG. 3.



came in a hurry between the hours of 12 to 6, either A. M. or P. M., I should start off in a hurry, for these hours of to-day are *birth hours.* But if the call comes after 7 o'clock, A. M. or P. M., it will scarcely be a hurried call, and I should say, all right, I shall step around by and by, for the child will not be born before 12 o'clock. If I go and examine, I shall find that the pains are only preparatory pains, and that the mouth of the womb is not fully opened yet. But let us suppose it were June 14th, some days after full moon, when the moon passes over the meridian at 4 h. 28 m. A. M., the time of birth would that day fall between the hours of 12 to 10.30, A. M. or P. M., the solar flood commencing *previous* to the lunar flood and merging into the latter. If it were June 20th, some four days after the last quarter, when the moon passes over the meridian at 9 h. 49 m., A. M., then the time of birth would fall between the hours of 9 h. 49 m., A. M., in the day time and P. M., in the night time, and last until 6 o'clock, P. M., in the day time and A. M. in the night time, because to the lunar flood would also join the following solar flood. In this way it

is an easy matter to determine, at any day or hour, the time in which a birth will probably take place."

Case.	Year	Month.	Day.	Hour.	Minute.	Moon South.	REMARKS.
101	1874	Nov.	2d	9 a.m.		7.14 a.m.	After new moon, during lunar flood.
102	"	"	11th	7	15 p.m.	1.40 p.m.	After new moon, near the termination of lunar flood.
103	"	"	26th	3 a.m.	.....	2.22 a.m.	After full moon, during solar and lunar flood.
104	"	Dec.	7th	12 m.	.....	10.45 a.m.	In last quarter, during lunar flood.
105	"	"	8th	9	15 a.m.	11.35 a.m.	Just before new moon, 2 hours and 20 minutes before lunar tide.
106	"	"	10th	4 a.m.	.....	1.22 p.m.	After new moon, during lunar and solar tide.
107	"	"	14th	2 a.m.	.....	5.51 p.m.	After new moon, during solar tide.
108	"	"	19th	4 p.m.	.....	8.55 p.m.	After first quarter, during solar tide.
109	"	"	31st	5	30 a.m.	6.32 a.m.	After last quarter, during solar tide.
110	1875	Jan.	25th	10 a.m.	.....	3.06 a.m.	After full moon, 54 minutes after lunar tide.
111	"	Mar.	20th	3 a.m.	.....	11.38 p.m.	After first quarter, during solar and lunar tide.
112	"	"	26th	9	45 a.m.	3.06 a.m.	After full moon, 39 minutes after lunar tide.
113	"	April	3d	6 p.m.	.....	9.56 a.m.	After last quarter, solar tide.
114	"	"	15th	8 a.m.	.....	8.54 a.m.	After first quarter, 54 minutes before lunar tide.
115	"	May	8th	6	45 p.m.	3.09 a.m.	After new moon, during lunar tide.
116	"	June	16th	4	30 p.m.	10.30 p.m.	After first quarter, during lunar tide.
117	"	"	21st	9 p.m.	.....	1.57 a.m.	After full moon, one hour after lunar tide.
118	"	"	20th	11	30 a.m.	1.05 a.m.	After full moon, half an hour before solar tide.
119	"	"	29th	5	35 a.m.	8.23 a.m.	After last quarter, during solar tide.
120	"	July	3d	6	25 a.m.	0.37 p.m.	During new moon, during lunar tide.
121	"	"	8th	7	45 p.m.	4.52 p.m.	After new moon, during lunar tide.
122	1874	Nov.	13th	3	30 p.m.	3.26 p.m.	New moon, during solar and lunar tide.
123	1875	July	14th	11 p.m.	.....	1.09 a.m.	After first quarter, one hour before solar tide.
124	"	"	22d	1 a.m.	.....	3.07 a.m.	After full moon, during solar tide.
125	"	"	27th	12	10 m.	7.00 a.m.	After last quarter, during solar and lunar tide.
126	"	"	20th	12	05 m.	1.34 a.m.	After full moon, during solar tide.
127	"	Aug.	23d	3	25 a.m.	5.06 a.m.	During last quarter, during solar tide.
128	"	"	24th	10	05 a.m.	6.04 a.m.	After last quarter, during lunar tide.
129	"	"	24th	7 p.m.	.....	6.04 a.m.	After last quarter, during lunar tide.
130	"	Oct.	14th	1 p.m.	.....	11.56 p.m.	Preceding full moon, during solar and lunar tide.
131	"	"	20th	9	40 a.m.	4.51 a.m.	After full moon, during lunar tide.
132	"	Nov.	4th	3 p.m.	.....	4.58 p.m.	After new moon, during solar tide.
133	"	"	5th	12 m.	.....	5.47 p.m.	After new moon, at the commencement of solar tide.
134	"	"	9th	9	40 a.m.	8.53 p.m.	After first quarter, during lunar tide.
135	"	"	17th	6	40 a.m.	3.48 a.m.	After full moon, during lunar tide.
136	"	"	28th	1	15 a.m.	12.30 p.m.	After new moon, during lunar and solar tide.

Case.	Year.	Month.	Day.	Hour.	Minute.	Moon South.	REMARKS.
137	1875	Nov.	28th	6	15 a.m.	12.20 p.m.	After new moon, during lunar tide.
138	"	"	30th	7 a.m.	.....	2.02 p.m.	After new moon, lunar tide.
139	"	Dec.	3d	10	35 p.m.	4.30 p.m.	*Forceps.* After new moon.
140	"	"	7th	2	25 p.m.	7.29 p.m.	After first quarter, during solar tide.
141	1876	Jan.	16th	6 p.m.	.....	5.12 a.m.	After full moon, solar and lunar tide.
142	"	"	25th	12	45 a.m.	Noon.	After last quarter, solar and lunar tide.
143	"	Feb.	11th	11	45 p.m.	2.19 a.m.	After full moon, 15 minutes before solar tide.
144	"	"	29th	1 p.m.	.....	3.40 p.m.	*Forceps.* After new moon.
145	"	"	25th	2	10 a.m.	0.36 p.m.	New moon, 1.19 a.m., during solar and lunar tide.
146	"	Mar.	3d	8	55 a.m.	6.32 p.m.	At first quarter, during lunar tide.
147	"	"	4th	1	45 p.m.	7.36 p.m.	After first quarter, during solar tide.
148	"	"	6th	11	30 p.m.	9.37 p.m	After first quarter, during lunar tide.
149	"	April	22d	1 a.m.	.....	11.23 a.m.	*Forceps.* After last quarter.
150	"	May	16th	7 a.m.	.....	6.57 a.m.	Just after last quarter, during lunar tide.
151	"	June	4th	5	30 a.m.	10.25 p.m.	After last quarter, during solar tide.
152	"	"	18th	10 a.m.	.....	9.36 a.m.	Breech extraction. After last quarter.
153	"	July	12th	1	48 a.m.	4.51 a.m.	After full moon, during solar tide.
154	"	"	13th	5 a.m.	.....	5.41 a.m.	Breech extraction. After full moon.
155	"	Aug.	29th	4 p.m.	.....	8.25 p.m.	After first quarter, during solar tide.
156	"	Sept.	18th	3	40 a.m.	0.30 p.m.	After new moon, during solar and lunar tide.
157	"	"	27th	10 p.m.	.....	7.56 p.m.	*Forceps.* After first quarter.
158	"	Oct.	4th	4	45 a.m.	1.07 a.m.	After full moon, during solar and lunar tide.
159	"	"	1st	2	20 p.m.	10.51 p.m.	After last quarter, during solar and lunar tide.
160	"	Nov.	2d	10 p.m.	.....	0.46 a.m.	*Forceps.* Ether. After full moon.
161	"	Dec.	29th	11	05 a.m.	11.17 p.m.	After first quarter, at beginning of lunar tide.
162	"	"	29th	3	15 a.m.	11.17 p.m.	After first quarter, during solar and lunar tide.
163	1877	Jan.	23d	5 a.m.	.....	6.54 p.m.	After first quarter, during solar tide.
164	"	"	31st	2	30 a.m.	2.00 p.m.	After full moon, during solar and lunar tide.
165	"	Feb.	13th	1	20 p.m.	0.31 p.m.	Left hand presentation, *version.* Just before new moon.
166	"	"	16th	2 a.m.	.....	2.32 p.m.	After new moon. *Forceps.*
167	"	"	26th	12	05 a.m	11.42 p.m.	After first quarter, during solar and lunar tide.
168	"	Mar.	11th	8 a.m.	.....	9.46 a.m.	*Forceps.* After last quarter.
169	"	"	11th	5 p.m.	.....	9.46 a.m.	After last qr. *Forceps,* then version.
170	"	April	7th	2	55 p.m.	7.41 a.m.	After last quarter, during solar tide. Ether; no instruments.
171	"	"	7th	7 p.m.	.....	7.41 a.m.	After last quarter, 1 hour *after* solar tide; nearly 1 hour before lunar tide.
172	"	"	17th	12	30 m.	3.27 p.m.	After new moon, during solar tide.
173	"	"	23d	7	30 p.m.	9.03 p.m.	After first quarter, 1½ hour after solar tide; 1 h. 33 m. before lunar tide.
174	"	May	23d	8	15 a.m.	9.21 p.m.	After first quarter, about half an hour before lunar tide.

Case.	Year.	Month.	Day.	Hour.	Minute.	Moon South.	REMARKS.
175	1877	May	30th	11 a.m.	.....	2.37 a.m.	After full moon, 1 hour before solar tide.
176	"	June	9th	3	30 a.m.	10.06 a.m.	After last quarter, during solar and lunar tide.
177	"	"	28th	10	15 p.m.	2.08 a.m.	After full moon. *Forceps.*
178	"	July	23d	9	45 p.m.	11.16 p.m.	After first quarter, 2 hours *before* lunar tide; 3.45 hours after solar tide.
179	"	Aug.	3d	8	15 p.m.	6.32 a.m.	After last quarter, during lunar tide.
180	"	"	21st	3	40 p.m.	10.48 p.m.	*Forceps.* After first quarter.
181	"	"	23d	11	05 a.m.	Midnight.	Just before full moon; 1 hour before solar tide.
182	"	"	31st	2	50 a.m.	5.18 a.m.	After full moon, during solar tide.
183	"	Sept.	12th	7 p.m.	.....	4.25 p.m.	After new moon, during lunar tide.
184	"	"	11th	12	30 a.m.	3.30 p.m.	After new moon, during solar tide.
185	"	"	30th	5	30 a.m.	6.07 a.m.	After last quarter, during solar tide.
186	"	Oct.	9th	8	30 a.m.	2.11 p.m.	After new moon; 19 minutes after lunar tide.
187	"	"	14th	10	50 p.m.	6.41 p.m.	After first quarter, during lunar tide.
188	"	"	14th	4	30 a.m.	6.41 p.m.	After first quarter, during solar tide.
189	"	"	18th	7	18 a.m.	9.29 p.m.	After first quarter; 1 hour 18 minutes after solar tide.
190	"	"	31st	2	40 a.m.	7.42 a.m.	After last quarter, during solar tide.
191	"	Nov.	7th	7	45 p.m.	1.50 p.m.	After new moon, during lunar tide.
192	"	"	3d	5	15 a.m.	10.10 a.m.	After last quarter, during solar tide.
193	"	"	16th	2 a.m.	.....	8.44 p.m.	After first quarter, during solar and lunar tide.
194	"	"	19th	10	15 p.m.	11.02 p.m.	After first quarter. *Forceps.*
195	"	Dec.	10th	4 a.m.	.....	4.40 p.m.	After new moon, during solar tide.
196	"	"	19th	1	45 p.m.	11.40 p.m.	Preceding full moon, during solar and lunar tide.
197	1878	Jan.	10th	9	30 a.m.	5.14 p.m.	After new moon. *Forceps.*
198	"	"	13th	12	20 m.	7.28 p.m.	After first quarter, during solar tide. Natural labor. *Acrania.*
199	"	"	15th	11	05 a.m.	9.21 p.m.	After first quarter, during lunar tide.
200	"	"	2d	4	30 a.m.	1.23 a.m.	After full moon, during solar and lunar tide.
201	"	"	26th	6 a.m.	.....	6.28 a.m.	After last quarter, during end of solar tide; 28 minutes before lunar tide.
202	"	Feb.	16th	2	22 p.m.	Midnight.	After first quarter, during solar and lunar tide.
203	"	"	17th	3 a.m.	.....	Midnight.	Preceding full moon, during solar and lunar tide.
204	"	"	27th	10	15 p.m.	8.56 a.m.	After last quarter, during lunar tide.
205	"	"	14th	10	30 a.m.	11.04 p.m.	After first quarter, at end of lunar tide.
206	"	Mar.	2d	4	35 a.m.	11.12 a.m.	Preceding new moon, during solar and lunar tide.
207	"	"	9th	4	30 a.m.	4.04 p.m.	After new moon, during solar and lunar tide.
208	"	"	28th	9	15 p.m.	8.28 a.m.	After last quarter, during lunar tide.
209	"	April	6th	12	15 m.	2.52 p.m	After new moon. *Forceps.*
210	"	"	13th	1 p.m.	.....	9.14 p.m.	After first quarter, during solar and lunar tide.
211	"	"	18th	4	30 a.m.	0.46 a.m.	After full moon, during solar and lunar tide.

Case.	Year.	Month.	Day.	Hour.	Minute.	Moon South.	REMARKS.
212	1878	April	25th	5	48 p.m.	7.08 a.m.	After last quarter, during solar tide.
213	"	"	18th	5 a.m.	.....	0.46 a.m.	After full moon, during solar and lunar tide.
214	"	May	6th	2	47 a.m.	3.35 p.m.	After new moon, during solar tide.
215	"	"	8th	10	30 p.m.	5.25 p.m.	After new moon, during lunar tide.
216	"	"	16th	4	15 a.m.	Midnight.	Full moon, during solar and lunar tide.
217	"	June	6th	9 p.m.	.....	5.05 p.m.	After new moon, during lunar tide.
218	"	"	17th	10	23 a.m.	2.04 a.m.	After full moon, 2 hours 19 min. after lunar tide; 1 hour 37 min. before solar tide.
219	"	"	21st	3	03 p.m.	5.02 a.m.	Preceding last quarter, during solar tide.
220	"	"	27th	5	08 a.m.	9.23 a.m.	*Forceps.* After last quarter.
221	"	July	11th	2 a.m.	.....	10.01 p.m.	After first quarter, during solar and lunar tide.
222	"	"	15th	2 a.m.	.....	0.45 a.m.	After full moon, during solar and lunar tide.
223	"	"	20th	6 a.m.	.....	4.17 a.m.	After full moon, during solar and lunar tide.
224	"	Aug.	5th	2 p.m.	.....	6.01 p.m.	Preceding first quarter, during solar tide.
225	"	"	19th	5	20 p.m.	4.18 a.m.	After full moon. *Forceps.*
226	"	"	23d	12	30 m.	Midnight.	After last quarter, during solar and lunar tide.
227	"	"	28th	7	10 a.m.	0.22 noon	New moon, 1 hour 10 min. after solar tide; 1 hour after lunar tide.
228	"	Sept.	7th	7 a.m.	.....	9.25 p.m.	After first quarter, 1 hour after solar tide, about 2 hours after lunar tide.
229	"	"	3d	1	12 a.m.	5.50 p.m.	Preceding first quarter, during solar tide.
230	"	"	16th	11	30 a.m.	3.00 a.m.	After full moon. *Forceps.*
231	"	Oct.	13th	8	45 a.m.	0.58 a.m.	After full moon; 1 hour 45 min. after lunar tide.
232	"	"	24th	5	30 a.m.	10.27 a.m.	After last quarter, during lunar tide.
233	"	Nov.	19th	10	23 p.m.	7.24 a.m.	After last quarter. *Forceps.*
234	"	"	19th	4	10 p.m.	7.24 a.m.	After last quarter. *Forceps.*
235	"	"	23d	6	40 a.m.	11.00 a.m.	Preceding new moon, 40 min. *after* solar tide; 1 hour 40 min. *after* lunar tide.
236	"	Dec.	3d	6	40 a.m.	7.28 p.m.	After first quarter, 40 min. after solar tide, about 20 min. before lunar tide.
237	1879	Jan.	1st	6	30 a.m.	6.46 p.m.	New moon 11.30 a.m., at the beginning of lunar tide.
238	"	"	19th	10	10 a.m.	9.36 a.m.	After last quarter, during lunar tide.
239	"	Feb.	10th	8 p.m.	.....	2 52 a.m.	After full moon, during lunar tide.
240	"	"	11th	3	05 a.m.	3.43 a.m.	After full moon, during solar tide.
241	"	"	14th	3	20 p.m.	6.30 a.m.	After last quarter, during solar tide.
242	"	"	24th	11	20 p.m.	2.36 p.m.	After new moon, 40 min. *before* solar tide.
243	"	Mar.	1st	10	30 p.m.	6.31 p.m.	After first quarter, during lunar tide.
244	"	"	2d	4	15 p.m.	7.25 p.m.	After first quarter, during solar tide. Breech; spontaneous delivery.
245	"	"	6th	7 p.m.	.....	10.58 p.m.	After first quarter. *Forceps.*
246	"	"	14th	2	10 p.m.	5.24 a.m.	Last quarter to-day, during solar tide.

Case.	Year.	Month.	Day.	Hour.	Minute.	Moon South.	REMARKS.
247	1879	Mar.	21st	1	50 a.m.	11.13 a.m.	Day before new moon, during solar and lunar tide.
248	"	"	29th	3	30 p.m.	5.15 p.m.	Day before first quarter, during solar tide.
249	"	April	22d	3 a.m.	.....	0.42 noon	After new moon, during solar and lunar tide.
250	"	May	30th	6 p.m.	.....	7.42 p.m.	After first quarter, during solar tide.
251	"	June	12th	3	50 p.m.	6.30 a.m.	After last quarter. *Forceps.*
252	"	"	30th	7	28 a.m.	9.16 p.m.	After first quarter, 1 hour 28 minutes *after* solar tide; about 1 hour 32 minutes *before* lunar tide.
253	"	July	16th	7	45 p.m.	9.46 a.m.	After last quarter, 1 hour 45 minutes *after* solar tide; about 2 hours *before* lunar tide.
254	"	"	16th	6	45 p.m.	9.46 a.m.	After last quarter. *Extraction*; Ether 2 hours.
255	"	"	27th	11	35 p.m.	7.07 p.m.	After first quarter, during lunar tide.
256	"	Aug.	11th	11 p.m.	.....	6.46 a.m.	After last quarter, during lunar tide.
257	"	"	24th	12 m.	.....	1.23 p.m.	After first quarter, during solar tide.
258	"	"	23d	6 a.m.	.....	0.11 noon	After new moon, during solar and lunar tide.
259	"	Sept.	28th	7	20 a.m.	10.53 p.m.	After first quarter, 1 hour 20 minutes after solar tide.
260	"	Oct.	27th	12	20 m.	10.15 a.m.	After first quarter, during solar and lunar tide.
261	"	Nov.	8th	5	20 p.m.	6.58 a.m.	After last quarter, during solar tide.
262	"	"	14th	8	15 a.m.	0.23 p.m.	After new moon, about 2 hours 15 m. after solar tide; 2 hours after lunar tide.
263	"	"	28th	3	55 a.m.	6.54 a.m.	Preceding full moon, during solar tide.
264	"	Dec.	6th	7 a.m.	.....	5.38 a.m.	Preceding last quarter, during lunar tide; last quarter 1.43 p.m.
265	"	"	6th	5	15 p.m.	5.38 a.m.	After last quarter, during solar tide.
266	1880	Jan.	4th	3	20 a.m.	Midnight.	After full moon, during solar and lunar tide.
267	"	"	15th	10	55 p.m.	3.21 p.m.	After new moon, 34 minutes *before* lunar tide.
268	"	"	27th	12	05 a.m.	Midnight.	Preceding full moon. *Forceps.*
269	"	"	24th	3	30 a.m.	10.22 p.m.	After first quarter, during solar and lunar tide.
270	"	Feb.	11th	9	34 a.m.	1.11 p.m.	After new moon, about 2 hours *after* lunar tide.
271	"	"	17th	6	18 p.m.	5.44 p.m.	Preceding first quarter, during lunar tide.
272	"	Mar.	13th	6 p.m.	.....	2.03 p.m.	After new moon, during solar and lunar tide.
273	"	"	24th	6	25 a.m.	10.52 p.m.	After first quarter, 25 minutes *after* solar tide. Ether; no instruments.
274	"	May	7th	8	05 p.m.	10.39 a.m.	After new moon, 2 hours 5 min. *after* solar tide; 2 hours 34 minutes *before* lunar tide.
275	"	"	14th	9	50 p.m.	4.17 p.m.	After new moon, during lunar tide.
276	"	"	6th	8	30 a.m.	9.55 a.m.	At new moon, 2 hours 30 min. *after* solar tide; 1 h. 25 m. *before* lunar tide.

Case.	Year.	Month.	Day.	Hour.	Minute.	Moon South.	REMARKS.
277	1880	May	11th	6 a.m.	.....	1.52 p.m.	After new moon, during solar and lunar tide.
278	"	June	25th	8 p.m.	.....	5.06 a.m.	After full moon, during lunar tide.
279	"	"	11th	12 m.	.....	3.01 p.m.	After new moon, during solar tide.
280	"	July	21st	9 a.m.	.....	Midnight.	Preceding full moon, 3 hours after solar and lunar tide.
281	"	Aug.	9th	1	10 p.m.	2.40 p.m.	After new moon, during solar tide.
282	"	"	13th	7 a.m.	.....	6.05 p.m.	Preceding first quarter, during lunar tide.
283	"	"	20th	5	30 a.m.	Midnight.	During full moon, during solar and lunar tide. Ether.
284	"	"	21st	4	10 p.m.	0.47 a.m.	After full moon. Ether. *Forceps.*
285	"	"	27th	12 m.	.....	5.33 a.m.	Preceding last quarter, during solar tide.
286	"	Sept.	16th	10	10 p.m.	10.37 p.m.	After first quarter, 27 minutes before lunar tide.
287	"	"	18th	9	10 p.m.	Midnight.	Preceding full moon, 2 hours 40 minutes before solar tide.
288	"	Oct.	25th	3	25 p.m.	5.21 a.m.	After full moon, during solar tide.
289	"	Nov.	9th	10	30 p.m.	6.29 p.m.	After first quarter, during lunar tide.
290	"	"	14th	5	40 p.m.	10.21 p.m.	After first quarter, during solar tide.
291	"	"	30th	9	30 a.m.	10.20 a.m.	After last quarter, 50 minutes before lunar tide.
292	"	Dec.	17th	11 p.m.	.....	0.24 a.m.	After full moon, 1 hr. before solar tide.
293	1881	Jan.	2d	6	55 p.m.	3.21 p.m.	After new moon, during lunar tide.
294	"	Feb.	8th	3	05 p.m.	6.58 p.m.	After first quarter, during solar tide.
295	"	"	19th	12	50 a.m.	2.38 a.m.	After full moon, during solar tide.
296	"	"	26th	8	15 a.m.	9.14 a.m.	After last quarter, 59 minutes *before* lunar tide.
297	"	June	28th	10	30 a.m.	1.42 p.m.	After new moon, 1 hour 30 minutes before solar tide.
298	"	July	3d	12	15 a.m.	5.14 p.m.	After new moon, during solar tide.
299	"	"	4th	4	15 a.m.	5.29 p.m.	After first quarter, during solar tide.
300	"	Aug.	3d	7	30 a.m.	6.22 p.m.	After first quarter. Ether, 10½ hours. *Forceps.*

Number born during solar and lunar flood tides combined..... 43
" " " solar flood..... 54
" " " lunar flood..... 38

Total born during the flood tides..... 135 or 67½ per cent.
" " " ebb tide, or other times..... 39 or 19½ "

Cases operated upon and excluded from the above tables..26 or 13 per ct.

Of three births occurring during the administration of an anæsthetic, without instrumental aid and included in the above tables, one took place during solar and lunar flood, one during lunar flood, and one during ebb tide.

These two hundred cases occurred from November, 1874, to August, 1881.

In attending these cases, I made very little use of the "moon's southing," but carried out the instructions of my *alma mater*, by visiting the patients as soon as called, and looking after them until their children were born.

Deducting 13 per cent. operative cases, and 19½ per cent. more naturally born at other times than during flood tide, leaves 67½ per cent. to confirm Mr. Peggotty's saying, enough to give credence to a popular belief, but not enough to make it sufficiently reliable for physicians to depend upon, for by these data we find that term and "tide wait for no man."

Dr. WILLARD: I use chloroform in labor whenever it is necessary, and have no fear of the effects. I use it during the pains, and at the termination of the labor. I have never had any puerperal hæmorrhage as the result of its use, nor have I had any trouble with the babe. I give chloroform only when I have a good assistant, for I cannot trust every one, and there are on record several cases of death from its use. I administer it on a handkerchief, giving it gradually, taking sufficient time. I usually wait until dilatation of the os has taken place, but if there is a condition of rigid os, I use it immediately. I have pushed it in four cases to complete insensibility, without any bad results. I would not give chloroform in the following conditions: (1.) In fatty degeneration of the heart. (2.) In those addicted to the use of spirituous liquors. (3.) Where there is albuminuria.

Dr. MORGAN: What about the administration of chloroform during convulsions with albuminuria?

Dr. WILLARD: In such cases I would only give a small amount of chloroform, not enough to cause insensibility, but only enough to control the convulsions.

Dr. JAMES: In cases that are very susceptible to the influence of chloroform, it makes no difference as to the amount administered; even a few inhalations may cause fatal syncope. It is well to bear in mind that, in syncope from anæsthetics, in ether narcotism, paralysis begins in the nerves of the pulmonary organs, while in chloroform, the cardiac nerves are

first affected. On this account ether is the safer agent. We might have a thousand cases without any unpleasant effects, and the next one might prove fatal.

Dr. Van Artsdalen: In using chloroform does it cause hæmorrhage, or has it caused detachment of the placenta?

Dr. Willard: I have not met with such effects from it, in my experience.

Dr. Betts: I am glad to hear Dr. Willard say that chloroform is applicable to cases that require it. I think there are a certain proportion of patients who require anæsthetics, while others do not. In very nervous patients, chloroform does good in preventing the shock which is engendered by labor. A case in point is that of a woman of nervous temperament, who, it was thought by her friends, would not be able to endure labor, but who was able to withstand the influence of parturition, and got through safely. In her second labor, knowing what she would have to endure, she became unnerved at the onset, and in this labor I gave an anæsthetic. I think this was a suitable case for anæsthetics.

Dr. Burgher: There is one point in Dr. Marsden's paper, where he recommends the use of a mixture of alcohol and ether. At the last meeting of the American Institute of Homœopathy, Dr. Peck reported the results of several experiments which had been made, by his advice, with various admixtures of alcohol and ether. In these experiments the various mixtures, after standing a few hours, became changed in density, and consequently in specific gravity, while simple agents, did not undergo any change. When you use these mixtures you do not know just what you have, but with pure chloroform or ether, you know just what you are working with. If Dr. Willard has any means of diagnosing fatty degeneration of the heart, I would be glad to know it.

Dr. Willard: I meant supposed fatty degeneration.

Dr. Burgher: I have never had any bad results from the use of anæsthetics in labor, but I never give them to full anæsthesia. If given with the care usual with those who are accustomed to administering such preparations, there is no danger unless there is a peculiar idiosyncrasy.

Dr. Pitcairn: I have had a little experience in this matter. In my practice I followed the custom of an old school physician, who always gave chloroform in its purity, and had good success. But I was fearful lest it might prove dangerous in my hands, so I concluded to use the mixture as already spoken of, and fixed upon that of three parts, by weight, of alcohol, two of ether, and one of chloroform. I have given this to about one-half of my cases; in some, giving it to complete anæsthesia, while in others, only bringing them partially under its influence. My experience with this mixture has been very satisfactory, as it undoubtedly shortens labor.

Dr. Betts: To what class of patients do you give it?

Dr. Pitcairn. I administer it to all who desire it, and urge it upon those who are nervous.

Dr. Dudley: Have you used forceps in connection with the administration of this anæsthetic?

Dr. Pitcairn: I have not, but have used them with chloroform.

Dr. Morgan: To what extent was the administration pushed, and how long was it continued?

Dr. Pitcairn: I give it during the paroxysm of pain and continue it while the pain lasts. I have continued it for more than six hours.

Dr. Graham: I have not given chloroform in labor for four years or more. I might conceive of a case where I would have to resort to it, but I find a better agent in chloral hydrate, or bromide of potash. We cannot tell when we are going to have contraindications to the use of chloroform, and the records show that many deaths have occurred immediately after the first inhalation. If we have one or two deaths in five or six hundred cases, we ought to try to find some remedy less dangerous. In using chloral I give one drachm with an equal portion of bromide of potash, in syrup, and give it until the patient has taken twenty or thirty grains. I find that it will subdue irritation of the os. I do not think chloral has any action on the fibers of the uterus, except the circular fibres of the os, and it will not prevent expulsive pains after dilatation. Chloral also dilates and relaxes the

external genital organs. If there is much suffering I depend on the forceps.

Dr. Morgan: Have you used the homœopathic remedies as suggested by our homœopathic writers?

Dr. Graham: I do not differentiate closely, but use that which serves me every time. I never had any after effects, except in one case in which the nurse disregarded my instructions. In this case I had prepared a two ounce vial of the mixture, and told the nurse to give a teaspoonful every half hour for two or three hours; but instead of stopping it at the expiration of that time, she continued until the whole two ounces had been given. When summoned I found the patient completely narcotized. The pains were entirely stopped. I gave her a few spoonfuls of strong, black coffee, after which the pains gradually returned and the child was soon born. The babe was narcotized, but was restored.

Dr. Hall: I did not hear the paper read, but I am opposed to the use of chloroform. I find very prompt results from the use of chloral alone, giving it in thirty grains does. One dose is generally sufficient, and I seldom need the second. Under its use, dilatation proceeds rapidly and the labor goes on to a favorable termination. I fear the effects of chloroform and ether, and do not give them.

Dr. Buck: I have not much experience in the use of chloroform in labor, but I do not think a physician in active practice could have time to stay with his patient to administer chloroform. I have used chloral, and it can be used without loss of time, whereas the use of chloroform involves a great deal of trouble, especially if given without an assistant. The responsibility is also greater, and I would prefer letting the woman suffer rather than take the risk.

Dr. Dinsmore: I have always, for a few years back, used ether alone, frequently giving enough of it to enable me to use the forceps, often doing without an assistant, and believe, that, with proper care, the danger is but slight. Once in a while a case is lost, under any circumstances, but I do not know of one being lost lately from the use of anæsthetics. I think that if a physician is called to a case of labor, that case

takes precedence of all else, and if necessary to stay with the patient constantly, it is his duty to do so.

Dr. Pitcairn: I am pretty busy, but I can find time enough to administer chloroform. I have used chloral, but my patients insisted on more complete anæsthesia.

Dr. T. M. Johnson: Vomiting is sometimes a troublesome occurrence. Does the use of anæsthetics interfere with homœopathic treatment?

Dr. Pitcairn: Ether has never caused vomiting, in my cases.

Dr. Graham: I think we would all stay with our cases as long as necessary, but we differ as to what may be necessary. I can leave my bottle of chloral and bromide and go and attend to my other business, knowing that my patient is doing as well as if I remained with her.

Dr. Maria N. Johnson: I have had an experience of ten years. In the last five of these years, I have depended entirely on my homœopathic remedies.

In one case I was overruled and allowed a patient to use chloroform. Just as the head passed the superior strait, she complained of great faintness, and I found the heart's action very feeble. I stopped the chloroform, and gave her belladonna and gelsemium, and she slowly recovered. In another case I gave a mixture of alcohol, chloroform and ether, and had a bad result; so I now depend on my remedies and intend to do so. The remedies I most frequently use are bell., puls., gels., cimicif. I always give cimicif.θ, ten drops a day, for the last two weeks of pregnancy. I push it till it produces nausea and till there is complete relaxation, and the woman feels as if everything was pushing down. Cham. is also very useful, especially in very nervous, excitable women. It is the homœopathic morphia.

Dr. Dudley: I want to get back to the statement of Dr. Willard in regard to the danger of using anæsthetics in kidney diseases. If we had been to the recent meeting of the Philadelphia Medical Society (allopathic) and heard their discussions on the subject, we would not use anæsthetics in any case where the kidneys were at all diseased. Dr. Burgher asks

how to detect fatty heart? We all know that we simply say there is fatty degeneration when we cannot find any other affection and there is some heart trouble. The diagnosis is made by exclusion. A man may fall in the street and die in apoplexy, as the result of kidney disease. Every case does not give us warning by the presence of albuminuria, but the trouble may come on at once. In such cases, ether is as dangerous as chloroform. If we can find a remedy or remedies to take the place of the anæsthetic, we should use it. I do not mean to abandon the use of chloroform or ether, but to use other remedies if possible. I believe in Homœopathy as an aid to parturition, and particularly in the use of remedies preparatory to labor. Cimicif., bell., caul. and gels. are the main remedies. Dr. Marsden says of caulophyllum, that where there are painful contractions weeks or months preceding labor, it will relieve the pain of the contractions. I have seen caulophyllum stop such painful contractions in twenty-four hours. Cimicif. has acted "magically." In one case I found a narrow pubic arch and was consequently fearful of the result of labor. I watched her for three nights and days. Being called to her about eleven o'clock I found her suffering great pain, and examination showed the os like a ring of bone. I gave cimicif.θ, three or four drops in a tumbler of water and ordered a teaspoonful to be given every fifteen minutes. On going into the room at twelve o'clock I found the head born. She had fallen asleep and awakened with a sensation of great pushing, with the above result. The action of the drug will surprise those who have never tried it. Under its use, when labor begins the parts are dilatable and it seems as if you could easily dilate to any extent.

Dr. Burgher: Dr. McClatchey, in his paper, recommends the use of injections of carbolized water to ward off septicæmia. I have never used anything of the kind, but think it would be bad practice to introduce a poison like carbolic acid into the system unless there were already signs of blood poisoning.

Dr. Morgan: Has any member noticed that the os is dilated almost immediately after the first inhalation of the anæsthetic? This has been my experience.

Dr. Walker: This matter is thoroughly discussed in Sansom on Chloroform. In forty thousand cases no bad results had been met with. In the lying-in hospitals of Dublin and Paris chloroform alone is used. In London, obstetricians use Guy's hospital mixture of chloroform, ether and alcohol. In one case to which I gave an anæsthetic, a large stout woman, to whom I did not think it necessary to give it, but it was insisted upon by her friends, I gave a mixture of alcohol one part, ether two parts, and chloroform three parts. I had great trouble in resuscitating the woman, and the babe was narcotized. Since that time I have used ether. In my three hundredth case, as reported last year, I gave the patient Squibb's ether. I kept her under the influence of it for nine hours, using in that time a pound of ether. I believe in homœopathic remedies, and think they act nearly as well as anæsthetics. I use anæsthetics and also forceps less frequently since using homœopathic remedies oftener. I would like to call attention to the method of rapid breathing as a pain obtunder as suggested by Dr. Bonwill. If this is carried out, beginning the rapid breathing with the onset of the pain, it will materially relieve the suffering. I do not usually find it necessary or best to stay with obstetrical patients in the early stage of labor; but if there is any condition present where the presence of the accoucheur is likely to be required, it is his duty to remain with the patient. I never used injections of carbolized water except in one case, and then the result was not good, probably because the solution was made too strong; through an error, a four per cent. instead of a two per cent. solution being used. As I had three hundred cases with only two deaths, without the use of post-partum injections, I will not use them, and expect to rely on homœopathic medication.

Dr. Maria N. Johnson: I have frequently had patients make use of this method of rapid deep breathing. I used it first myself in the extraction of a tooth, and found that it actually lessened the pain. When I can get patients to do as I want them to, I have them use this method. In one case the woman had convulsions, and by rapid, deep breathing, the

pains were relieved and the convulsions ceased. I have only used medicated injections once, and in this case the nurse carelessly pumped air into the uterus and the patient nearly died.

Dr. Van Artsdalen: Injections of carbolized water have a tendency to dry up the secretion of milk. Dr. Wilson uses anæsthetics, not for the purpose of lessening suffering, but to save his time and enable him to get away sooner.

Dr. Betts: I have not had much experience with chloroform. In cases of puerperal convulsions, even when accompanied with albuminuria, my experience has not led me to discard this means of relief. My practice in such cases is to deliver as soon as possible, using whatever means may be necessary. I use a mixture of two parts chloroform to one of ether. When it is necessary to use forceps, I always administer an anæsthetic. I commence giving it during the time of pain, giving it gradually at first. I have used vaginal injections, especially in one case of puerperal phlebitis from septic influences. In this case the pains were severe, and while the head was still at the superior strait the cord became prolapsed. I thought it necessary to replace the cord, so got a sponge, which they said was perfectly clean, and, making a hole in it, put the cord through, and putting the patient in the knee-chest position, I was able to replace it, leaving the sponge until delivery. In two days the patient had a chill, followed by all the symptoms of septicæmia. I found on careful inquiry that though the sponge had been washed clean, yet as it was the ordinary bathing sponge, there were probably some impurities clinging to it which were sufficient to excite the trouble. I used every means I could to mitigate the symptoms, and found that every time I had an injection of warm carbolized water of a strength of two per cent. administered, I noticed, the same evening or the next day, a decided lowering of the temperature. I found that by using the injections every second day the symptoms were mitigated. The patient got well, but, contrary to her usual habit, the milk was entirely dried up, which I attributed to the use of the carbolic acid.

Dr. Cooper: I have always thought that our law of similia similibus curantur should be held in some reverence, even in cases of labor. The process of labor is a physiological one, and does not necessarily need medicine. A certain time must be consumed in preparing the maternal parts for the expulsion of the child, and this cannot be shortened without detriment. I often find that it is as difficult for a patient to rally from the effects of chloroform as from the effects of enduring labor unaided, and the only benefit I can see from its use is that we save the noise and the patient is saved the pain. In one case I watched for two days, and at the end of this time the os was dilated to the size of my finger. At this juncture chloroform was given, and in a very short time the os began to dilate. The chloroform was continued for four and a half hours, when the labor was successfully terminated, there being but one and a half ounces used in this time. The immediate effect of the anæsthetic was to allay nervous excitement, and to equalize the contractions of the uterine fibres, producing a natural labor.

In giving chloroform I am guided by the uterine contractions rather than the pain. The uterine fibres begin to contract sensibly before pain is felt by the patient, and I give it as soon as contraction is observed and leave it off as the contraction ceases. In the case mentioned, I did not give the anæsthetic every time, and I observed that the throes during which it was given were a little stronger than the others. In a case thought to be similar to this one it had a contrary effect. I gave it in a case where there was not that nervousness where we expect to get benefit from it, and there, instead of the force of the uterine contractions being increased, there seemed to be a relaxation, and the labor was retarded.

Dr. Morgan (Dr. Dudley, vice-president, in the chair): What methods of resuscitation have been used by the members in chloroform narcosis? Nelaton's method is to invert the body, having the legs placed over the shoulders of an assistant, and letting the head hang low. This is done with the idea that syncope from chloroform arises from anæmia of the brain. I had an opportunity of examining the brain in a case that died

of chloroform narcosis, and I found the brain congested. I believe, as Dr. Buck has said, that the falling forward of the tongue is the cause of relief. A ready way to restore patients in chloroform narcosis, is to dip the finger in vinegar and rub it on the tongue. This has never failed me. In one surgical case the patient ceased breathing almost immediately, and the vinegar being applied he was restored at once. I would call attention to the use of sugar as an antiseptic. Use the granulated sugar, and in septic discharges from the vagina, dissolve one or two teaspoonfuls of sugar in a pint of water and use it as an injection. I have felt that chloroform is a safe remedy in labor, but it produces prostration afterward.

Dr. BURGHER: Ammonia is another good remedy in narcosis from anæsthetics. I believe the tongue should be pulled well forward.

Dr. VAN ARTSDALEN: In the case of phlegmasia alba dolens reported, what caused the lump under the knee, and what caused the leg to get cold? Was it phlegmasia dolens, or was it albuminuria? That which led me to believe that it was phlegmasia dolens was that the femoral vein felt like a hard cord. At no time did the leg pit on pressure.

Dr. BETTS: In my opinion the case was complicated; some of the symptoms might be attributed to lymphangitis and some to albuminuria.

Dr. MORGAN: It might have been lymphangitis, instead of phlebitis.

REPORT OF THE BUREAU OF SANITARY SCIENCE.

Dr. PEMBERTON DUDLEY, chairman of the Bureau of Sanitary Science, presented the following papers, which were accepted and referred:

The Influence of Modern Civilization upon Infantile Mortality, by P. Dudley, M.D.

Hygiene of the Lying-in Chamber, by J. F. Cooper, M.D.

THE RELATION OF MODERN CIVILIZATION TO INFANTILE MORTALITY.

BY PEMBERTON DUDLEY, M.D., PHILADELPHIA.

The high rate of mortality among infants and young children involves some sanitary problems that are not so easy of solution as some easy-going physicians are disposed to think. Almost any observant practitioner of medicine has frequent occasion to enjoin increased care, or an entire change in the management of the infants and young children under his charge. But the modes of death, the types of disease incident to childhood, and the causes and aggravating influences of these maladies are so numerous and varied that no one, nor no half-dozen methods of dealing with the subject will ever reduce infantile mortality to a reasonable or attainably small percentage.

The most grave feature of our subject is to be found in the steady increase in the rate of infantile mortality in this country, or at any rate, in our large cities. Unfortunately the vital statistics of the United States are, as yet, too meagre to enable us to tell exactly what this rate of increase is. The most reliable figures are those furnished by the city of Boston, Mass., embracing the period ftom 1820 to the present time. This city enjoys reasonable health, the mortality from all causes, the mean general death-rate, being about 24.5 per 1,000 of population. Here the records of childhood's mortality yield the following general results:

	Deaths during childhood as compared with total mortality.	
	Under 1 year.	Under 5 years.
1820 to 1830—Average per annum,	8.73 per cent.	25.69 per cent.
1830 to 1840— " "	12.66 "	35.17 "
1840 to 1850— " "	12.76 "	37.52 "
1850 to 1860— " "	23.84 "	46.49 "
1865 to 1869— " "	23.90 "	41.30 "
1865 to 1875— " "	25.40 "	41.70 "
1870 to 1875— " "	27.00 "	42.10 "
1874—Average per annum,	28.19 "	42.99 "
1875— " "	25.25 "	44.39 "
1876— " "	24.82 "	43.04 "
1877— " "	24.95 "	40.94 "

These latter figures receive a certain corroboration from the statistics of the Philadelphia Health Office, which show that during the eight years from 1869 to 1876, included, the average mortality was, under *one* year, 27.55, and under *five* years, 43.20 per cent. of the total mortality at all ages.

We are thus confronted by the surprising statement that in such a city as Boston, during the last half-century, the death-rate among children under one year of age has increased from about $8\frac{3}{4}$ per cent. of the total mortality to about 27 per cent.; in other words, it has exactly trebled. And during the same period, the death-rate among children under five years of age has increased from about 25.7 per cent. to about 42.1 per cent—an increase of about 60 per cent. So far as we are able to learn from the few statistics at our command, other cities have exhibited a similar change in their annual infantile death rate, the principal increase in all of them, as shown by the figures, being among children under two years of age. It is safe to say that within the last fifty years the annual death rate among children under two years of age has more than doubled.

In connection with this matter, it is not uncommon to hear remarks from physicians and other sanitarians about "the enervating and debilitating influences of our modern civilization" as the explanation of our infantile death rate. It seems a little strange that the civilization whose successive stages are marked with a more comprehensive and perfect knowledge of the laws which govern our animal existence, of the influences which affect human health, and of the means for preventing or ameliorating the effects of such influences, should, in spite of all this, be the cause of an appalling increase in our mortality rate. If we but look at the names of the diseases to which most of the fatality belongs, we find them connected chiefly with changes affecting the nutrition functions—digestion, absorption, circulation, etc., and even the few which may not properly be included under this class, are too frequently dependent upon nutritive disorder as an occasioning cause. Yet it is true, that in few departments of hygienic knowledge have we made more decided progress than in the nutritive manage-

ment of infants, and the knowledge thus acquired has been more widely distributed amongst the general masses with each succeeding year. Hence, it is a serious question for us, how far our modern civilization holds a causative relation to the diseases of infancy and childhood! It is in the hope of shedding a little light on this question that we present a few facts gathered from the record of the Philadelphia Health Office.

The city of Philadelphia, perhaps more than most other large cities, presents a great variety of condition and character as respects her population. Of her thirty-one wards, some are noted as containing the abodes, almost exclusively, of thrifty, intelligent and well-to-do citizens. Among these, we may mention prominently the 15th and the 29th. Both are quite solidly built up, but have fewer of the narrow streets, lanes, courts and alleys of other wards. There are also fewer liquor stores and beer saloons, and fewer manufacturing establishments, except that the first mentioned ward contains the Baldwin locomotive works and several other large iron manufacturing establishments, and near the western boundary of the last named ward several large beer breweries are located. The general surface of the ground in both wards is elevated, and has sufficient inclination to insure perfect drainage. In marked contrast with these, are the 4th and 25th wards, being on lower and more level ground, and literally cut up by narrow courts, lanes and alleys, into which the over-crowded tenements pour their teeming thousands of people. Here are the abodes of the poor—not "the Lord's poor," however,—the ignorant, the drunken, the syphilitic, the dirty and the lazy. In the 4th ward particularly, squalor and poverty and degredation reign supreme. In the 25th ward is included "Port Richmond" and the Reading Railroad Company's coal wharves. Most of the laborers at these wharves are hard working, hard drinking, hard swearing, hard fighting Irishmen, and intemperance, rather than some of the still lower forms of vice, is everywhere seen, and poverty and vice stalk in every street. A third variety of condition is found in the 22d and 23d wards —the *rural* wards of Philadelphia, with their population of comparatively well-to-do farmers and sober, hard working la-

borers. We must not forget, however, that in the 22d ward is the manufacturing village of Manayunk, and in the 23d, the busy mills of Frankford, with their thousands of operatives.

To recapitulate, we have two "Lower Wards"—the Fourth and the Twenty-fifth; two "Higher Wards"—the Fifteenth and the Twenty-ninth; and two "Rural Wards"—the Twenty-second and the Twenty-third. Let us see what these different wards will teach us on the subject of infantile mortality:

The year 1874 is mentioned in the Annual Report of the Philadelphia Board of Health as having been an unusually favorable one for the health of young children, being remarkably free from epidemic influences. Such a period should be peculiarly adapted for the statistical study of those influences which affect childhood, and which are non-epidemic as to their origin. The total mortality of the city during that year was 16,315, and the deaths of children under five years of age was 7,323, or 43.64 per cent. of the total, which is not far from the average mortality among children in other large cities.

In studying this subject, I have first ascertained the total deaths in the city, and then in each of the six sample wards, resulting from those causes which seem to operate chiefly in warm seasons, and which are not considered infectious, viz.: diarrhœa, cholera infantum, tabes mesenterica, hydrocephalus, cephalitis, convulsions, congestion of the brain, teething and inanition. The total number of deaths from these causes was 3,177. Now in undertaking to decide between different localities regarding the infantile mortality rate, it will not be reliable to compare the infantile deaths with the total, because the same influences which affect the one factor would also in some measure affect the other. I have therefore compared the deaths under five years of age with the *births* in the same locality, thus obtaining a more certain basis for my percentages.

In the whole city, the total number of births in 1874 was 18,496, exclusive of still-births. The total number of deaths under five years of age from the special causes above mentioned was 3,177, an average of 17.18 per cent. for the entire city. Now on comparing each of our sample wards with this standard percentage, we obtain the following:

Lower Wards.	Fourth,	18.00 per cent.
	Twenty-Fifth,	20.50 "
Higher Wards,	Fifteenth,	15.35 "
	Twenty-Ninth,	14.21 "
Rural Wards,	Twenty-Second,	12.08 "
	Twenty-Third,	14.25 "
For the entire city, as above, average,		17.18 "

In other words, the mortality among children under five years old, from the special diseases named, in the 4th and 25th wards was above the general average, and in the 15th, 29th, 22d and 23d below the general average. The percentage for the 23d ward, I think, is incorrect, for a reason which I will mention farther on.

Now, let us consider the mortality of children under the remaining diseases which prominently affect children. In the health reports these are given under the following titles, some of which are a little obscure, viz: Abscess, anæmia, cerebro-spinal meningitis, collapse of the lungs, congestion of the lungs, croup, diphtheria, disease of the brain, dysentery, brain fever, catarrhal fever, gastric fever, scarlet fever, whooping cough, bronchitis, laryngitis, pneumonia, measles, sore mouth, sore throat and syphilis. In some of these diseases a difficulty presents itself, due to the fact that they affect adults as well as children, and in locating them in the different wards, the health officer, in his report, jumbles them all together. I have attempted to overcome this difficulty by ascertaining the exact proportion of infantile deaths to the total deaths under each of these diseases in the whole city, and then following out that percentage in each of the different wards, and making this general percentage a basis for my estimates under each disease. The following is the (of course, estimated,) result:

Total deaths in the city from the above named causes, 1,359, or percentage of births,		7.35 per cent.
Lower Wards.	Fourth,	9.71 "
	Twenty-Fifth,	6.26 "
Higher Wards.	Fifteenth,	6.03 "
	Twenty-Ninth,	5.02 "
Rural Wards.	Twenty-Second,	4.24 "
	Twenty-Third,	10.14 "

Here it is seen that even in that large class of diseases, many of which are *not* so prominently aggravated by the avoidable conditions of existence, the averages point distinctly and pos-

itively to the disadvantages of poverty, dissipation, and their legitimate and unfailing consequences—over-crowding, ill ventilation, inadequate or unsuitable food, and, perhaps, most of all, ignorance of, or indifference to, the requirements of hygienic laws generally. The one exception to this statement is found in the extremely high mortality rate of one of the rural wards —the 23d. I find here that, while pneumonia and bronchitis are responsible for a large proportion of the deaths in all the wards, they are peculiarly so in the 23d ward, having caused 44 of the deaths out of a total of 75. It is also worthy of remark—and this applies equally to the death rate under our first class of diseases—that the number of births reported in the 23d ward is far below the average in the entire city, being but 1 to each 50 of the population, as against 1 to every 29 in the 22d ward. This is doubtless due to the well known neglect of our rural physicians to make due returns of their births to the health office, as required by law, and it, of course, seriously modifies our percentages by affecting the very basis of our calculations. If the birth rate in the 23d ward was equal to that in the 22d, its death rate under our first class of diseases would be reduced from 14.25 to 8.55 per cent., and in our second class from 10.14 to 6.08 per cent.

Now, taking both classes of diseases, and our corrected estimates of the mortality in the different wards, we find as follows:

The average mortality from all these mentioned diseases in the whole city among children under five years of age, as compared with the total of living births, is 24.53 per cent.

Lower Wards.	Fourth,	27.71 per cent.
	Twenty-Fifth,	36.76 "
Higher Wards.	Fifteenth,	21.38 "
	Twenty-Ninth,	19.23 "
Rural Wards.	Twenty-Second,	16.32 "
	Twenty-Third,	14.63 "

That is, in the lower wards it is about 12 per cent. above the average; in the higher wards, about 16 per cent. below the average; and in the rural wards, about 33 per cent. below the average.

These percentages may appear to represent very small factors, but a somewhat careful examination of them will make it

appear, according to these figures, that, if the conditions of infantile life which prevail in the 15th and 29th wards (both well built up) could be extended to the whole city, it would save the lives of not less than twelve or fifteen hundred children annually, and if those conditions could be made to resemble those of the 22d and 23d wards, which, perhaps, is not possible, it would preserve the lives of nearly three thousand children annually.

As practical sanitarians, however, it becomes us to seek out the causes which operate to induce those modes of life which we find so prevalent in the 4th and 25th wards, and to too great an extent, alas! in all the others, and thus seeking, we shall find, beyond doubt, that the one prominent cause is the entirely unrestricted sale and use of intoxicating liquors, a cause which operates by constantly reducing the wealth of all citizens alike—of the sober, industrious citizen, as well as of the lazy, drunken loafer; which compels sobriety to support dissipation, industry to maintain idleness, thrift to uphold waste; which robs trade of its profits, and labor of its wages; which drives even careful, industrious, sober people, cheated out of their just dues, into narrower and narrower streets, into more contracted dwellings and more crowded rooms; which steals away their food, their clothing, yea, and their oxygen too; and which forces their children into the contaminating spheres of vice and dissipation. Verily, if we would save the children, we must crush the serpent of alcoholic intoxication.

HYGIENE OF THE LYING-IN CHAMBER.

INCLUDING THE MANAGEMENT OF MOTHER AND CHILD.

BY J. F. COOPER, M.D., ALLEGHENY CITY.

In most parts of our country it is seldom that the practitioner is called upon to select a room to be occupied by the parturient woman, but if consulted he should possess sufficient knowledge of the principles of hygiene to make a selec-

tion, where it is possible to do so, that will be for the best interests of mother and child.

Individual views may differ as practitioners are located in town or country, but the intelligent observance of the general principles found to exist, by a close study of the subject of sanitation, will usually lead to just conclusions in this as in other important matters.

In the country, where the air is pure and the surroundings are healthful, a room of moderate size that can be made light and cheerful, and that is sufficiently out of the bustle and stir of the family and housekeeping, and that can be guarded against unbidden visitors, can be made to answer; but in the city, where the atmosphere is presumably less pure, a room of good size should be selected. The ceilings ought, in either case, to be of sufficient height to give abundant air space, and means for thorough ventilation should be duly considered. Cheerful surroundings with freedom from accustomed care, without too much isolation, should be considered necessary in every case, and when the financial condition of the patient makes it possible, should be insisted upon.

In the cooler part of the year while artificial heat is needed in the lying-in chamber the open fire place is at once the safest and most reliable. It serves the double purpose of giving an even heat to the room, and by its open draught causing a more or less free ventilation by aspirating the gaseous exhalations that are common to such apartments, and at times quite offensive during a portion of the puerperal period. The heated flue of the open fire place makes a greater demand for air to supply its exhaust from the chamber or ward than the generally smaller flue supplied through a stove. In either case every crevice or opening through which air can be drawn contributes its share of fresh external air to fill the exhausting space. This, on entering the room, is speedily brought to the temperature that the stove or fire place is capable of maintaining, and in the process of heating it is brought in contact with the gases circulating in the room. The greater the demand, the more rapid the supply and the more thorough the circulation of the incoming air. The heated flue should

not be so large or the demand so great that an even temperature of not less than 65° Fahrenheit cannot be maintained at all times or in any kind of weather. Furnace heat should not be used for heating the lying-in room where other means can be conveniently had. The air space of the lying-in room should not be less than 1,600 cubic feet for each adult compelled to occupy it during the puerperal period.

The patient's bed should be placed in the room so that the draft from an opening door or window will not pass directly over it. It should not, however, be placed in a corner where the eddying currents of the air of the room will not be sufficient to free it from offensive odors. The bed upon which the patient is to lie should be of medium height so that when the accoucheur is seated upon an ordinary chair by its side the elbow will rest comfortably upon it. At this height the bed clothing is less likely to be disarranged and the person of the patient less exposed during the labor. The heavier gases sink away better than if on a low bed, and being so near the height of the opening of the ordinary fire front the lighter gases that occupy more or less of the space in the upper portion of the room are drawn off through the chimney flue, thus allowing the patient to occupy what would seem to be the best strata of air in the room.

The bed or mattress should be firm but not too hard for the comfort of the patient and without the elastic spring bottoms so much in use at the present time. Too much of a departure, however, from the habit of the patient should not be required, lest discomforts be aroused which would more than counterbalance any gain arising from the change of custom. The cover of a patient lying in can best be directed by observing her habits. Too much cover should not be allowed. Just enough to keep the body comfortable and protect it from sudden changes of temperature is sufficient. The patient should in no case, when doing well otherwise, be allowed to lie under a weight of cover that will keep her in a profuse perspiration; nor should she be allowed to lie under so light a cover as to check perspiration and induce a chill.

When the bed is to be prepared for parturition it should be

stripped of all top cover and a heavily wadded comfort or something heavy and absorbent doubled and placed upon the tick or mattress in such a position as to cover all of the bed likely to be wet or soiled by the discharge of amniotic fluid or blood. The sheet should then be spread over this, the pillows placed in position and a gum blanket or oilcloth spread upon the sheet over the comfort before spoken of. Upon this a doubled comfort or blanket should be placed, so as to receive and absorb as far as possible the discharges at the time of delivery.

The covering of the patient during labor may be light and not sufficient to oppress her, but on its completion should be increased if the mother is at all cool, so as to avoid chill and other complications.

After delivery, if the woman is not too much exhausted and the womb is fairly contracted, her wet and soiled clothing and the things placed above the sheet, if very wet, should be removed and the bed made dry. But if uterine contraction is but slight and blood is discharged freely or in gushes, with quick, slender pulse, the patient should remain perfectly still till the bleeding has been controlled and uterine contraction established. Or, if no evidences of contraction are seen and the patient grows pale and the action of the heart feeble and other evidences of approaching syncope present themselves, while she yet has some muscular power, she should be turned upon the side to which the womb had gravitated during her pregnancy, and a suitable medicine immediately administered, in frequently repeated doses, until unmistakable symptoms of improvement are seen. If already in a condition of syncope it is too late to change position other than if the head is high to let it down to a line with the body. Cold water sprinkled or thrown with some force a distance of two or three feet upon the face and head, will serve to arouse in some measure the sunken vital energy. The hand should at once be passed over the abdomen to discover the position of the womb; and if there is an effort at contraction the points of the fingers pressed carefully upon a hardening center will soon cause it to extend to the remainder of the organ. But

if there is no discoverable effort at contraction, the womb and abdominal walls being flaccid, no time is to be lost. The finger passed into the vagina and up to the os will enable the practitioner to decide whether there is an obstructing clot to be removed, and the womb allowed to empty itself, contraction following the escaping blood, or a condition of inertia that requires the arousing influence of mechanical irritation applied directly to the inner surface of the womb. If this is the condition, the hand should be passed into its cavity and brought in contact with its surface in such a way that contraction will follow the touch, and so carefully that no serious irritation will result from it.

As soon as the safety of the patient is assured all wet or soiled clothing should be removed from her bed. Sanguineous discharges change so soon that it is best to run no risk from septic influences which might develope from their remaining too long about the patient.

Careful sponging of the person of the patient with warm water, done under cover, should be directed as well for the comfort of the patient as for maintaining the purity of the atmosphere of the lying-in room, that in this as in cases of other sickness, is so necessary for the well being of patients.

To bandage or not to bandage after delivery is, among practitioners of the present age, a question of considerable interest; each side having as supporters men of every degree of standing in the profession, from the mere tyro to the accomplished accoucheur. Considering the subject from a sanitary standpoint, it cannot be denied that at least a portion of the cases treated require bandaging for a time. Any mechanical appliance that causes a patient to feel comfortable is certainly a sanitary necessity, and every practitioner of extended experience, who has applied bandages from time to time after delivery, can testify to the expressions of comfort uttered by the patient at least in some instances. When the patient is anxious about her personal appearance, it has a wonderfully soothing influence upon her to comply with her wishes. In cases where the womb has been large following twin labors, or an undue distension from an unusual quantity of amniotic

fluid, or where a condition of inertia is found with more or less hæmorrhage, a sustaining bandage should be applied; but in no case should a bandage be put upon a patient so tightly as to give discomfort or press unduly upon the viscera of the abdomen.

When applied it should be used as a support and not as a compress. The patient using it should wear it as long as she feels it to be a support, and when it ceases to be a comfort to her it should be left off.

Where the abdomen is flat and there has been but moderate distension, the application of a tight bandage has a tendency to increase the after-pains, and rather retard than hasten the recovery of the patient.

Those who are fleshy and have large swollen limbs with varicose veins, are usually the persons most benefited by bandaging. By sustaining the weight of the abdomen, the venous circulation of the lower limbs is allowed more freedom, and the swelling and painful condition so often met with at the end of gestation disappears more rapidly.

Neatness and comfort should be the governing thought in its application. It has been customary to cover the whole abdomen from the pubes to the ensiform cartilage, making the bandage tight below, and only tight enough above to make it lie smoothly. No special form of bandage is adapted to all cases; the practitioner is, therefore, left to the exercise of his own judgment, governed by general principles in directing what will be best adapted to each case. The bandage first placed upon a patient after delivery is so soon soiled and requires removing, that an elaborate appliance need scarcely be thought of for a few days in cases where a bandage is called for. Those cases that bleed but little and where the womb contracts promptly seldom need a bandage, and, if one is applied, they are generally the worse for its application.

If after-pains seem to be the result of its application, or any other discomfort is produced by it, take it off immediately. The bandage, when to be applied, should be long enough to go around the patient and lap fairly, so as not to require it to be pulled too tight for the patient's comfort, and should be

wide enough to support all the viscera that need support, and of material that will be sufficiently firm to maintain the required pressure.

When the lying-in patient has been properly attended to after delivery, the room should be darkened through the day to about the shade of twilight, and that shading maintained till after lactation has been fairly established. This should be attended to for two reasons: headache of greater or less severity is complained of by most lying-in patients if allowed too much light, and when the room is not shaded the eyes as a general thing become weak, or are used too much, and are injured in that way.

The temperature of a lying-in ward or chamber during the cooler portion of the year should be kept as nearly as possible between 65° and 70° Fahrenheit, unless for good and sufficient reason a greater or less is deemed advisable.

Labor is the performance of a function, and, unless complicated, is truly physiological. The digestive organs, therefore, after a natural labor, are not necessarily in an unhealthy condition. When the puerperal patient has had a sleep, and her nervous equilibrium is restored, a diet commensurate with the power of her digestive organs should be directed, giving less at a time and a little oftener than the usual meal times. The articles of food directed to be used should be such as will not produce flatulence or acidity in either mother or child.

The peculiarities of each case require to be duly considered, and no article of food allowed that is of doubtful applicability. In no case, however, should the increased drain upon the system of the mother by lactation be lost sight of, and an effort should be made to counterbalance it by proper nourishing food.

Following delivery the woman should be allowed to rest for several hours before the child is put to the breast, and, in order to excite as little after-pain as possible, it would be good practice to keep the child from the mother till it manifests some signs of hunger; it will then be more willing to take hold of the nipple. Each breast should be drawn once by the child every twenty-four hours, till the lacteal secretion sets in, to

teach it to nurse and to clear out the milk ducts. Any oftener than that will make the nipples tender, and, if persisted in, will in many cases inflame the breasts, and assist in bringing on suppuration of the mamma. To insure sound nipples at the commencement of lactation, there is nothing so effective as frequent washings of the breasts with pure soft water, warm or cold as the feelings and comfort of the pregnant woman may indicate. Without washing, the follicles become obstructed and the skin unhealthy; the nipples, therefore, can scarcely fail to become tender when frequently drawn after delivery. Until secretion has been fully established in the breasts of the lying-in woman, the nipples should be carefully washed with warmish water every time the child nurses. This will be more effective in keeping the nipples from getting sore than any of the applications or washes so commonly used before and after delivery. If the breasts have been carefully handled till the lacteal secretion has been fully established, it is seldom that any further trouble occurs to mar or prevent the rapid improvement of the lying-in woman.

Thorough relaxation from care, with perfect quiet of mind and body, are necessary to the proper return of physical vigor. The time necessary for the complete restoration of the lying-in woman varies with the individual. Among American women, by common consent, the ninth day is considered the limit of their confinement to bed, and a majority of them leave their rooms by or before the end of the second week. A few keep their beds and are unable to leave their rooms for many weeks; and, on the other hand, there are a few who are as well able to be about the house on the second or third day as the majority are in ten days. The time largely depends upon a more or less prompt return of the womb to its natural, unimpregnated size. When involution has been accomplished there is no longer any necessity for keeping the recently delivered woman confined to the bed or room. Every day that she is compelled to spend idly in her apartment and is treated as a patient has an unbalancing effect upon her, and retards in some measure a return to her natural strength.

Thus far nothing has been written of the management of

the newly-born child. The remainder of this paper will be devoted to that subject as viewed from a sanitary standpoint.

Immediately after the birth of the child, it should be looked to that its respiration is free and unobstructed by mucus which may be taken in when it first inhales after delivery. In a few cases, respiration is established as soon as the head passes the vagina. In others, the child is entirely expelled before any voluntary effort is made to establish respiration. When the circulation of the mother is good, and oxygen is supplied to the child in sufficient quantity through her system, the respiration of the child may be less prompt, and not till the cord begins to be impressed by the difference in temperature and its venous circulation flags, does the want of that important element compel some effort to breathe on the part of the child.

Respiration should be full and free before the attention of the practitioner is withdrawn from the child. The infant that does not cry may be looked upon with a suspicious eye, unless the surface of its body becomes a bright red, and its inspirations and expirations are regular and natural. Obstructed respiration, according to Jacobi, is often associated with melæne, produced by secondary thrombus in the ductus Botalli, or a primary one in the umbilical vein. Females are more prone to melæne than males, from a comparatively smaller set of vessels. He also avers that feeble children, with imperfect respiration, should not be allowed to sleep long at a time, and should be caused to cry occasionally, and also recommends external irritation, alternate warm and cold baths, and at times electricity, to stimulate the organs of respiration and circulation. As soon as full respiration has been established, there need be no delay in ligating the cord, as a full supply of oxygen can be taken through the newly expanded lungs, and carbonic acid thrown off in sufficient quantity to insure its vitality. The venous circulation through the cord, as soon as full respiration has been established, can be of little benefit to the child, as the placenta is in many cases already detached from the uterine surface, and the supply of good healthy blood materially lessened. If the pla-

centa maintains its attachment, and the venous current continues to flow, the temperature of the circulating fluid soon falls much below the natural standard, and when it does so must exert a pernicious influence upon the liver through which it is poured into the general circulation of the child. In most animals born the cord is long, and when young are brought forth, a considerable length of it is exposed to atmospheric influence, and is soon chilled or dried so as to stiffen, and as effectually cut off the circulation as if it was securely tied. But with the child in a warm bed and under cover, the chilling process is so gradual that hæmorrhage will occur in a large proportion of cases left without tying. With judicious management the cord may bleed but in an occasional case, but as a precautionary measure tie in every case.

When the cord is tied and cut, the skin of the newly-born babe can be most readily cleansed from the cheesy matter usually found upon the surface and in the folds of the skin in the axilla and inguina by rubbing lard well into the places found to be coated with it, and when well mixed with the caseous matter, a soft woolen cloth will remove both most effectually, leaving the skin in most cases clean and ruddy, with a little odor of lard, which is easily removed by washing the surface with warm water after it has been well smeared with castile soap.

As a dressing for the navel, clean cotton or absorbent cotton, or where these are not at hand, well worn soft muslin or linen should be used dry and free from grease or oil of any kind. When dressed dry in this way the cord drops off sooner, and is less likely to become offensive than if done up in any of the ointments or greasy applications so frequently used.

The roller used to secure the dressing of the navel should be woolen, soft and pliable, and of sufficient width to cover the space from the lower part of the hypogastric region to the middle of the chest, and should be sufficiently long to go around the body of the child twice. It should be pliable and elastic to allow of freedom of movement in the walls of the chest and abdomen, so that respiration need not be embar-

rassed or digestion impeded by it. Its clothing in cold weather should be mostly woolen in our climate, but in hot summer weather cotton or linen would be preferable. When taken up from a warm bed or from under a warm cover in cold weather, extra woolen wrappings should always be used to secure as far as possible a uniform temperature.

After the child has been washed and clothed its mouth should be thoroughly cleansed with fresh water, and if comfortably warm it should then be placed under cover to rest, and to be looked after occasionally to see that all is right with it till the performance of some function compels special attention.

Dr. B. W. JAMES: I think Dr. Cooper's paper a most excellent one. I do not consider it safe, in our method of severing the cord, to leave it untied; but you may allow it to remain so for a short time. A clean cut is made, and then the stump is wrapped up warmly, everything conducing to hæmorrhage. If the cord were broken or twisted off, it would be perfectly safe to leave it untied.

In regard to Dr. Dudley's statistics, I think his report is all right; but back of his report are those who make the figures. I think the data from which he draws his conclusions are not correct. It is almost impossible to get correct reports of vital statistics. In one of our cities, during the recent small-pox epidemic, they were losing cases of measles at the rate of fifty to seventy-five every week, and but from twenty to twenty-five cases of small-pox.

It is a question whether civilization improves sanitation. In savage and semi-barbarous countries the inhabitants move away when their surroundings get filthy, while we congregate in our cities and live right in the midst of our impurities, and then cry out about imperfect sanitation. The nearer we get back to barbarism in sanitary matters, the better it will be for us. Even in our health resorts the plumbing, and the means of removing excreta are defective, and the people are poisoned the same as at home. The result will be that people will

quit going to them, and instead will go out on farms. The life of a sailor is the healthiest, he getting away from everything impure; the next best place to live is on an island, then seaside resorts and high mountains.

I do not thing drunkenness is the great cause of such mortality. The tenement house system is more productive of disease. The reason the localities spoken of by Dr. Dudley had such a high mortality is because capitalists build such houses in order to get better interest on their investments. The only way to abate it is by tearing down such buildings.

Dr. MORGAN: It is stated that sailors, though exposed to primary syphilitic infection, rarely have tertiary symptoms. I will ask Dr. Willard if this accords with his observations?

Dr. WILLARD: I found that those who contracted hard chancre would have secondary symptoms, though perhaps not for eighteen months after the primary sore appeared. I believe the sailor's life to be the most healthy. I think the reason of the sailor's rarely having tertiary symptoms is that he is continually under the care and treatment of the surgeon, and is not running around among irresponsible physicians.

Dr. MORGAN: Did you observe tertiary symptoms in old man-of-war's men:

Dr. WILLARD: I did not. In regard to seaside resorts, I believe that those situated on low reefs are bound to be unhealthy. I think this is the case with Atlantic City and Cape May. I would select the rocky coasts of Maine, in preference. I may cite the instance of the springs of Waukeshaw, which have degenerated, so that patients of mine who formerly improved greatly under the use of the waters, now receive no benefit whatever, on account of the defective sewerage and accumulation of impurities.

Dr. MORGAN: Do you consider that the permanent basins of inland resorts are preferable to the underground river of the seaside resorts?

Dr. WILLARD: I prefer seaside resorts, but fear the low localities.

Dr. BETTS: We may be deceived in thinking that the un-

derground current is toward the sea. In Atlantic City the flow is inland, and there is a slow steady current running back to the meadows, and the soil must become permeated with impurities.

Dr. DUDLEY: It is a fact that decomposing matters are deleterious so long as decomposition is going on, but how long does this continue? Does not the time come when decomposition ceases? An impression prevails that the accumulated animal and vegetable matter of the past twenty-five years is still decomposing. I think it is all decomposed in three years, except bony and hard tissues, and becomes perfectly harmless.

Dr. DINSMORE: If decomposition does cease, is there not a constant accumulation and increased supply?

Dr. COOPER: It will take a long time for the accumulations to surcharge the soil enough to do harm, outside of the malarial influences at work. As yet the sands seem unadulterated, and seem to contain nothing detrimental. Morbid influences are at work, but they are not due to decomposition. There are few people who do not feel better at the sea line.

Dr. GRAHAM: It occurs to me that one of the most prolific causes of effeminacy in children is heredity. Our mothers are below par, and the children cannot be anything different. Woman's clothing is not such as contributes to her highest development. She is in a condition of exalted nervous sensibilty, and improper diet and reading keep her below par.

I was pleased with Dr. Cooper's paper. I was anxious to know the opinion of the Society in regard to the use of the bandage. I use it, but principally from the force of custom. I do not see that it does any good in preserving the shape. Some patients are more comfortable with the bandage on, and in such cases it is useful. I do not apply the bandage when there is a tendency to hæmorrhage, as I have had trouble in that way several times.

I have never found a remedy that I could depend on to control flooding. Have used various homœopathic remedies, and also ergot, but generally use mechanical means. I introduce the hand, turn out clots and compress the womb with the

other hand, holding it until it is firmly contracted. I have held it this way for an hour. For syncope after hæmorrhage I use a dash of cold water, but would rely more on hot water, applying it by means of a sponge wrung out and placed over the heart.

In the treatment of cracked nipples I get the best results from a solution of nitrate of silver, twenty grains to the ounce. I have the solution made in nitrous ether instead of water, for there is always more or less greasy or oily exudation about the nipple, and the ether, dissolving this, allows the drug to reach the skin. I never saw mastitis occur when I used equal parts of tincture of opium and extract of belladonna, put in water, and applied by means of cloths saturated with it. This application prevents congestion and promotes absorption, and will prevent mastitis. I often put a flaxseed poultice over this whole dressing, which has also a tendency to promote absorption.

As to diet, Prof. S. H. Dickson, of Jefferson College, used to say that "hunger is an expression of a want in the system; if that be so we had better respect the voice of it in diet." The lying-in patient should have nutritious diet. It may be necessary to limit the amount, but not the variety.

Dr. Van Artsdalen: Do you use homœopathic treatment at all in sore nipples?

Dr. Graham: I use bell., aco., bry. and graph. as indicated. I use the latter also as a cerate.

Dr. Dudley: This discussion should be on the prevention and not the treatment.

I want Dr. James and others to understand my position in regard to drunkenness. I do not say that all who die in these localities die from the effects of alcoholic drinks. I say the use of them impoverishes communities, and drives sober people into courts and alleys. In the Twelfth ward of Philadelphia, where I formerly lived, saloons and brothels are numerous. The clerks, mechanics, laborers, etc., living about me spent the bulk of their earnings in the saloons. In my immediate neighborhood a shoemaker began to work at his

trade, working for some large establishment down town, bringing his work home. In time he accumulated some money and opened a store, but in a short time he broke up and lost all he had, and is now living in one of the courts in the neighborhood. This man was honest and desired to better his condition, but as his patrons left all their money in the saloons they could not pay their debts, and he is forced into a miserable court. I left the place because I could not collect my bills.

Go into a neighborhood where there are no saloons and where people live who are able to pay their bills and to live comfortably, and the children do not die so rapidly.

One gentleman says to never apply the obstetrical bandage when there is danger of hæmorrhage. I used to follow this plan, but got tired of waiting and began to put on the bandage, fitting it pretty close. I find it reduces the pulse, because the rapid pulse is due to the excitement and nervous exhaustion. A condition of general relaxation produces local relaxation, and, *per contra*, local relaxation will produce general relaxation. General weakness involves the abdominal muscles and relaxation of the abdominal muscles produces syncope. As in paracentesis abdominalis you apply a bandage to prevent this, so also you do it in parturition. The obstetrical bandage as usually applied is of no use whatever. If the bandage could have a fair trial we would like it better. We all admit that obstetrics stands in the first place in our profession, but we leave the bandage, a means powerful for good or evil, to be applied by any one who thinks he can put it on. The surgeon does not do this, but adjusts his bandage with extreme nicety. The post-partum bandage is usually put on so that it will not stay in place and the patient is constantly annoyed by the efforts made to readjust it. Some years ago, I concluded it was unnecessary to use the bandage, and left it off in the case of one of my patients, and for the next five years the woman was ashamed to go on the street, as she had the appearance of a woman near full term of gestation. I had a similar experience with some

other patients, and concluded to use the bandage again, but I contrived a bandage fitted to the form, which extends from above the crest of the ilium to the middle of the thighs, and is prevented from slipping up by thigh straps.

Dr. James: I usually agree with Dr. Dudley, but to-day he seems out of joint. Green Street, Philadelphia has no saloons in it. This difference is due solely to capitalists who have decided that this shall be a good neighborhood. They decide in regard to the other case, too.

The general idea is that our health resorts are getting worse, but this is a mistake. Atlantic City is like a sponge, and impurities have been accumulating for a long time. This is now being taken into account, and better sanitary rules are being strictly enforced. They have introduced an improvement in the water system which is changing the method of removing excreta. There is now plenty of water and the refuse can be carried to receiving tanks and thence carried away. When this is done it will be more healthy. Other resorts are paying attention to this and they will all be improved. As these places are becoming popular as winter resorts, also, these remedies must be applied. I know that the air of these sea-side resorts is beneficial, and health is improved by sojourn there.

Dr. Morgan: Have you thought of the feasibility of utilizing these excreta?

Dr. James: That question is being considered, especially in Europe, where extensive works are in operation to gather up the solid impurities and run off the water which is perfectly pure. The farmers will buy a certain amount of this matter, but lately they have been frightened by a rumor that certain chemicals contained in it would destroy vegetation.

Unlike Dr. Graham, in the treatment of mastitis, I begin first with homœopathic remedies, and these failing, I then resort to other means. The use of opium and belladonna, like camphor, has a tendency to dry up the milk. I seldom use external applications. The poultice in mastitis rather causes than prevents suppuration.

I agree with the doctor as to diet. I feed substantial food from the first.

Dr. Maria N. Johnson: I have listened with great pleasure to the discussion on the use of the bandage, but I do not agree with those who have spoken. Everyone who puts on a bandage in such a way as to pull down, by this means causes the very trouble it is designed to prevent. I make use of a bandage which I think is superior to that in ordinary use. In applying the bandage I raise up the lower part of the abdomen as high as possible without discomfort before putting it on, and fit it across the lower part of the abdomen. Adjust the bandage yourself and do not relegate it to any one else.

I have all patients with large abdomens wear this bandage. You cannot find one out of seventy-five of the fashionable women who have used the bandage to preserve their figures, who has not a relaxed abdomen.

I am surprised to hear Dr. Graham speak as he does about hæmorrhage after confinement. When he gets tired studying his remedies I would urge him to study the materia medica. He should study the temperament of his patient, which is the best guide to the remedy. I use medicines alone, unless there is some traumatic cause. The remedies I use most frequently are: Sabina; puls., when the patient is of light complexion, soft temperament, mild disposition etc.; ipecac., when the flow is dark and clotted; bell., when the discharge is hot; aconite, for miscarriage or abortion when the patient is frightened and thinks she is going to die; verat., in severe cases with cold skin, pale, blue, and where there is much pain. I like the use of hot water and use it in every case of syncope. I never use any local application except hot water.

Dr. Graham: I would like to ask if, while you are giving remedies, you would object to taking your hand and assist in causing the womb to contract. I learned the indications for those remedies eight years ago and believe them to be good, but they have failed me, and in urgent cases I do not believe in trusting to remedies that I am not sure of, and there are times when we must resort to other means.

In reply to Dr. James, I would say that I do use the remedy indicated. It is efficient, but is not sufficient. When there is a hard nodule in the breast, I want it absorbed.

Dr. Morgan: Bryonia will do it.

Dr. Graham: I know it will, but not so quickly as other means. A poultice will do it, too; and here I differ with Dr. James. There is a point in congestion where suppuration is inevitable, but by the use of hot water we can prevent engorgement and avert suppuration. I have aborted many abscesses by poultices, when applied early.

Dr. James: I misunderstood the doctor and thought he said other means were all-sufficient and that he did not use remedies. I seldom find trouble in relieving congestion. Belladonna is a very good remedy.

Dr. Pitcairn: I cannot agree with Dr. Graham, for I have found that the use of homœopathic medicines in inflammatory conditions and in flooding, has been eminently successful, and is better than other means which I have tried. Have used many other things, without result. Ergot failed me entirely.

Dr. Dudley: I would like to ask Dr. Cooper, or some of the other gentlemen, as to the cause of mastitis. Is it ever caused by violent sucking when the supply of milk is scanty?

Dr. Cooper: In my experience, when the lactiferous secretion is not sufficient and the child is allowed to suck too long, mastitis will follow. Where the secretion is scanty, the child wants to suck often and cries for it, and the mother unknowingly gives the breast, and suffers for it. When I find the child is not satisfied, I examine the breasts, and require that other nourishment be given it and the breasts be allowed to rest, and to be washed and kept clean. If the skin is abraded, I apply arnica or calendula.

Dr. Hall: Experience is the best teacher, and my experience teaches me that my patients get along better with the bandage. I have had but two cases of puerperal hæmorrhage. The remedies used were bell., chi., ipec., sabina and secale. For fissured nipples I use a wash of boracic acid, four grains to four ounces of rose water. I agree with Dr. James as to giving generous diet, and put the child to the breast soon.

Dr. DUDLEY in the chair. The report of the committee on the president's address was presented, and on motion accepted, and the recommendations contained therein adopted.

REPORT OF THE COMMITTEE ON PRESIDENT'S ADDRESS.

To the Homœopathic Medical Society of Pennsylvania:

Your committee would respectfully report, that it deems the views contained in the address worthy of a wide circulation, and especially commend what is said upon the subject of Medical Legislation, and the suggestions regarding the continuance of the good work begun in this direction, and already bringing in favorable results.

The committee desires to offer to the Society the following for adoption:

1st. That the Committee on Publication have extra copies struck off when the Transactions are running through the press—the number to be optional with the committee.

2d. That two hundred copies be furnished the president for his own use.

3d. That a copy be sent by the corresponding secretary to each of our homœopathic journals.

BUSHROD W. JAMES, M.D.,
J. C. BURGHER, M.D.,
HUGH PITCAIRN, M.D.,
Committee.

REPORT OF THE BUREAU OF SURGERY.

The chairman of the Bureau of Surgery being absent, Dr. L. H. Willard, in behalf of the bureau, presented the following papers, which were accepted and referred:

Artificial Urethra, by M. J. Buck, M.D.

Cases Treated in the Homœopathic Hospital of Pittsburgh, by W. R. Childs, M.D.

Nerve Stretching, by L. H. Willard, M.D.

Neurectomy: A Supplementary Report, by L. H. Willard, M.D.

Anthrax, by Jos. E. Jones, M.D.

Wound of the Perinæum Penetrating the Bladder, by L. H. Willard, M.D.

ARTIFICIAL URETHRA.

BY M. J. BUCK, M.D., ALTOONA.

The case I am about to relate to you is one very unique, more especially the operative mode of cure. I have never seen a similar one reported or mentioned in the books—the usual operation for cartilaginous stricture of the meatus and anterior portion of the urethra being amputation of the glans penis.

Mr. L., aged 63 years, operated on in January, 1879. The ætiology of this case is very obscure. The patient stoutly denied ever having had gonorrhœa, and I have every reason to believe his statement to be true, as he is a man truthful in all things; yet this alone would not suffice to convince me were it not that I believe that cartilaginous or fibrous stricture of the anterior portion of the urethra, due to gonorrhœa, is a very rare disease, if it ever exists.

This man was subject to many abuses necessitated by his occupation, being a poor man and laboring for a livelihood. He remembers (as most men do) having received severe falls many times, and of having contused that organ by having fallen astride of hard objects as fences, etc., yet these are all obscure causes.

Be this as it may, the disease was a very marked and ever annoying trouble, rendering him unfit to follow any occupation.

The symptoms were a calloused condition of the urethra with almost complete obliteration of the canal, leaving a calibre into which it was difficult to introduce the finest enema filiform bougie. It was difficult for the patient to void his

urine, which was only accomplished by intense or violent muscular action, and the urine dribbled away, drop by drop. This necessarily produced chronic cystitis with ammoniacal decomposition of urine and all its concomitant symptoms. The emaciation and complete nervous exhaustion, following as the result of the long continued suffering, physical and mental, which the patient had endured, more or less aggravated, for the space of eight or nine years, had been the means of bringing him to the very brink of the grave. He had consulted many physicians, some of note, without having received any relief, and, several times, in the hope of gaining relief, has had the meatus urinarius and urethra enlarged by incision and subsequent dilatation, which was even of doubtful temporary avail as it rapidly grew smaller. After having endured this kind of torture for an almost indefinite period he consulted me, and I proposed making a new meatus back of the stricture, to which he gave his consent. The operation was done in the following manner, my colleague, Dr. Allen, kindly assisting me.

I passed a small silver probe through the stricture and half an inch beyond. This answered me as a director upon which to make an incision, which, having been done, I removed the probe and enlarged the artificial opening sufficiently to pass a number twenty-two, Nelaton's, catheter, of which I allowed one end to remain in the bladder and the other to project from the artificial opening. Through this catheter the bladder was washed out daily with warm water. After the lapse of two weeks the catheter was removed, and only inserted when needed to cleanse the bladder, which was done every third or fourth day for two months. In conjunction with local treatment I gave sulphur[30] internally, two doses daily, and at the end of four months I had the pleasure of seeing my patient entirely relieved of the cystitis, which, of course, was only the result of the obstruction, and able to pass a full, uninterrupted stream through the artificial opening, and at present, after a lapse of three years, he visits me and reports himself well, and says he can pass his urine as freely as he ever did, save the inconven-

ience of having to pass it directly down instead of up and forward as he was accustomed to do when in his natural condition. There now exists a condition which might appropriately be termed artificial hypospadias.

SURGICAL CASES TREATED IN THE HOMŒOPATHIC HOSPITAL OF PITTSBURGH.

BY W. R. CHILDS, M.D., PITTSBURGH.

Case 1.—Steel worker; admitted October 5th, 1881; was struck two weeks ago in supra-pubic region by handle of buggy while shifting iron in mill. The treatment was hot arnicated fomentations and arnica[3] internally, and discharged in four days cured.

Case 2.—Laborer injured on B. & O. R. R. while walking along the track on his way home in the evening. When brought to the hospital, upon examination, he was found to have sustained a fracture of the left frontal bone, and the left leg had a comminuted fracture between the knee and the ankle. The leg was placed in a posterior splint and thus supported. The case was considered fatal from injuries of the head. Drs. J. H. McClelland and S. C. Scott assisting, the patient was anæsthetized, and twenty-seven fragments of crushed and depressed bone, which had penetrated the brain, were removed. The scalp was drawn together and held in position by two wire sutures. Arnica solution was applied to the wound, and arnica[3] given internally. This patient improved for three days, and then a consultation was held with Drs. L. H. Willard and J. H. McClelland, who advised the aspiration of the leg owing to its œdematous condition. This was a dry result, and the limb upon the following day was amputated at the upper third, antero-posterior flaps being made, which were left open for drainage. The patient rallied well. The stump was dressed with carbolized oil, lint and oakum.

I was assisted in the operation by Drs. J. H. McClelland,

L. H. Willard, R. E. Caruthers and T. M. Strong. China$^{\theta}$ was administered every two hours. The following day the stump was syringed with warm carbolized water and redressed as before. Pulse, 86; temperature, 99¾. Ordered Valentine's meat juice to be given in teaspoonful doses once in three hours. At 8 P. M. Drs. J. H. McClelland and J. S. Rankin examined the case with me. We find pulse 80; temperature, 99⅘; tongue dry and red; great thirst, but has been drowsy during the afternoon. Arsen. alb.^{3} every two hours. Under this treatment until 26th of October the patient seemed to improve, his pulse coming down to 78 and temperature to 98½. The pus from the leg looks well and healthy, and stump healing nicely. From this time until the 5th of November the patient continued to improve, and, strange as it may seem, has not to this time manifested any brain symptoms. On the evening of this day, while his pulse was but 76 and his temperature 98¼, he was seized with a violent fit of vomiting, complained of pain in the region of the heart, with a distracting pain in the head, which is worse when lying down; must be propped up to get relief. Bryon.^{3} was given every two hours.

November 6th. Had a very poor night; pain in the head and left chest continues; vomits all food and drink; pulse, 76; temperature, 99; involuntary stools. Carbo. veg.^{3} every hour.

November 7th. Pulse, 74; temperature, 98½. Continue treatment.

November 8th. Had a restless night; pain in stomach; perspiration profuse; flushed face; pulse low, 68, and temperature 100. The brain begins to exude (cerebral hernia). Continue carbo. veg., and apply carbolized water to the head. Stump continues to do well.

November 9th, 10th and 11th. The cerebral hernia continues to increase in size, and vomiting is almost constant. Ipecac.^{1} given without any effect, and nux^{1} substituted on the 12th. The cerebral hernia is less in size, and yet there is some effusion. Bowels are moved slightly; speech slow; pulse, 76; temperature normal.

November 13th. Uncomfortable all night; bowels moved

by an enema; pulse, 78; temperature, 99. Dr. J. H. McClelland visits patient with me and advises to continue treatment.

November 14th and 15th. Cerebral hernia reduced in size, but some oozing of blood and incoherence of speech. Stump looks well. Treatment continued.

November 16th. Cerebral fungus much enlarged; bloody discharge; patient has continual incoherent muttering; tongue is coated and dry; pulse, 108; temperature, 103½. Treatment continued.

November 18th. Pulse, 150; temperature, 104; unconscious.

November 19th. Pulse, 160; temperature, 106; respiration, 50. Dies at midnight.

November 20th. Post-mortem held by Dr. J. H. McClelland, with the staff assisting him, I being absent. A section of the skull was made, embracing part of the frontal and parietal bones of the left side, extending to the frontal prominence. It was found that the injury produced was about two inches square. The dura mater was lacerated; left portion of the brain was protruding. The suppuration in the brain substance, caused by this injury, was found to have produced a cavity large enough to contain a goose egg, and extended through left hemisphere to the roof of the ventricle.

Case 3.—October 16th. R. G. This patient was sent to the hospital from the police station. He was at a fire last night and was thrown into a cellar, and had his scalp torn from over the right eyebrow to the occipital protuberance, the scalp falling down over the ear. The wound was united with wire sutures and adhesive plaster, and arnica solution applied.

October 21st. Pus having gathered beneath the tissues, the parts above the temporal bone were incised and another incision below the malar bone, and a fenestrated drainage tube was inserted to draw off the accumulated pus. The case did well on arnica[3], and was dismissed November 26th.

Case 4.—November 3d. German, carpenter. F. B. was working at erection of new building. Fell about eighteen feet, fracturing left leg at the lower third, bruising his back

and dislocating his left wrist. A Day's splint was applied to the left leg and another to the wrist as a support.

November 16th. Removed splint from the arm and applied bandage. He is now allowed to sit up in bed.

November 31st. With the assistance of Dr. J. S. Rankin I remove splint and apply a plaster of paris bandage. Fracture doing well.

January 14th. Patient discharged well without any shortening of the limb.

Case 5.—November 11th. W. C., was working on a building this A. M. and fell thirty feet, but cannot give a satisfactory account of the fall. He don't remember anything until some time after he fell. With the assistance of Dr. C. H. Hofmann the patient was anæsthetized, and on examination no bones were found to be broken but he was injured internally and bruised externally. He was put on arnica[3] internally and bathed with a solution of arnica, warm, and discharged December 5th, well.

Case 6.—November 27th. J. M., colored; burn of the face, chest and hands by blowing out of a hot-air furnace. This case was brought to the hospital without having been dressed, and was, therefore, in a bad condition. The first application made was carbolized oil and cotton over it. Arsen.[3] was given internally, and on the 22d of December, he was discharged cured, would a scar.

Case 7.—December 2d. W. H., laborer, employed at iron furnace. While working with dump car removing the cinder, he tramped on some and his pants took fire. The posterior aspect of both thighs and legs, and the palmar surface of the hands and fingers were burned, the latter by endeavoring to extinguish the fire about his legs. This case was treated with carbolized oil and arsen.[6] internally. Discharged well, January 7th.

Case 8.—December 6th. C. S., age 13. While running an elevator this morning, he had his right arm caught, breaking radius and ulna at lower third. The fracture was reduced and a Day's splint applied.

December 20th. Removed splint and applied plaster of paris bandage.

December 31st. Removed bandage and bathed the arm and reapplied.

January 15th. Discharged patient cured.

Case 9.—December 11th. J. S.; right ankle dislocated laterally. Bones readjusted; lateral splints applied and arnicated fomentations used, and rest enjoined.

January 1st. Discharged well.

Case 10.—December 11th. M. G. Hand crushed by massive rock while mining coal. A palmar splint was applied and the hand dressed with calendula.

December 31st. Discharged well.

Case 11.—December 12th. A. B. was injured while unloading telegraph poles on B. & O. R. R. He had four ribs broken on the left side; the right arm was broken; the hand bruised and the little finger of the left hand crushed. His ribs were confined with Seabury & Johnson's adhesive plaster and a bandage placed over it. He continued to improve, and on the 27th the plaster and bandage were removed and reapplied.

December 31st. Was discharged well.

Case 12.—December 12th. J. S. was injured at the same time as the last case mentioned. He had three ribs broken on the right side and two on the left. Treatment the same as above.

December 29th. Discharged well.

Case 13.—December 20th. R. W., age 42, was wounded seventeen years ago in the civil war, and had the head of the humerus resected. Three weeks ago a pustule appeared near the elbow, which this day I opened and removed a piece of lead. This man came to the hospital for the purpose of having his arm taken off, thinking it was useless. The operation was refused. His system was in a low state, he being under the influence of malaria. Chinin., ars.[3] was given, and on January 6th he was discharged improved.

Case 14.—December 24th. P. K. received injury at the steel works from hot metal pouring into his shoes from the tilting of a ladle. All the fingers of both hands were burned in trying to take off his shoes. He was treated with carbolized oil and arsen.[3] given internally. He was discharged April 1st improving steadily.

Case 15.—December 24th. G. S. M. has been sick for two weeks with diarrhœa and aphonia. Stools very frequent and offensive. He was admitted to the medical ward, and transferred when the nurse discovered on removing his boots that his toes were frozen. Carbolized oil was used as a dressing and arsen.[6] given internally. On the 28th the line of demarkation commencing to form, and on the 29th, assisted by Drs. Willard and Martin (Drs. Caruthers and Putnam administering the anæsthetic), I removed, by amputation, the distal half of the left foot, sawing straight across the metatarsal bones. Dorso-palmar flaps were united by four sutures, after ligation of the arteries. Dressing, diluted calendula and bandage. The patient rallied well, and on January 1st, Dr. Willard performed the same operation upon the right foot. This man improved under the use of arsen.[3] and was discharged March 14th.

NERVE STRETCHING.

BY L. H. WILLARD, M.D., ALLEGHENY CITY.

Mr. B., age 30 years. This patient had suffered during every winter, for six years, with severe attacks of neuralgia, located in the upper portion of the arm. All forms of treatment, including outward applications and two operations upon the bone itself by old school surgeons, had failed to relieve. These operations were done under the belief that the bone was diseased. The pains were so intense that hypodermic injections of morphine had to be administered once or twice each day, and then the pains were controlled in a measure only. The operation of stretching was advised as a last resort, in which the patient eagerly acquiesced.

On February 8th, 1881, assisted by Dr. R. E. Caruthers, the patient was placed under the influence of chloroform. An Esmarch's bandage was applied to the whole arm, and an incision made alongside of the deltoid muscle, extending down to the nerve, which was easily exposed. The nerve was lifted from its sheath and stretched to twice the length of the incision. The loop, which was about three inches long, was doubled up and placed in the bottom of the wound. The in-

cision was closed with adhesive straps and allowed to heal by granulation. He recovered promptly from the operation with only a slight pain at the seat of the operation, but in a few days all pain ceased and he resumed his daily occupation, that of a plumber, with no loss of sensation.

Even if the attacks return on the approach of winter, he has had a year of complete relief.

NEURECTOMY.

SUPPLEMENTAL REPORT.

BY L. H. WILLARD, M.D., ALLEGHENY CITY.

A neurectomy of the supraorbital nerve, in which one inch of the nerve was removed, reported to this Society six years ago as a success, has been only partially so.* In the first week of July of this year (1882), after a complete rest of six years, the attacks of pain returned, but not, as yet, in so severe a form as when the operation was performed. Acon.[2] internally and the tincture externally relieve him. The nerve influence has been fully restored to all the parts supplied by the supraorbital nerve. We have not been able to find, in a cursory glance through the medical literature at our command, any record of a case where the history of the result of the operation extended over the same length of time as in the case here given. Dr. S. Weir Mitchell gives† a record of twenty-three cases of resections of nerves for *traumatic* neuralgia, of which the longest recorded interval is five years. The operation of resection for idiopathic neuralgia is not a frequent one, nor are the after histories of cases of nerve stretching altogether satisfactory as showing permanent relief. Both of the cases which I have related were treated with various homœopathic remedies in varying attenuations without the slightest relief.

As an interesting point in connection with this case, we give the following experiment by Brown-Sequard in relation to the repair of a resected nerve.‡ He removed a portion of the sciatic

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*See Transactions, 1874–78, p. 484. †Injuries of the Nerves, pp. 282–290.
‡Le Prog. Med., vol. x., p. 69.

nerve of a monkey. At the end of two months the muscles had not yet recovered either their motility or sensibility. The animal was then killed, and on examination the divided ends of the nerve were found to be reunited by a new growth of nerve tissue. It had not resumed all nervous connection with the cord, but its rapid repair was the remarkable feature.

It will be necessary in the future to give a guarded prognosis as to the lasting benefits conferred by the operations of resection and elongation in connection with nerves.

ANTHRAX.

BY JOS. E. JONES, M.D., WEST CHESTER.

A case of this disease of unusual magnitude has recently come under my care, which to the general practitioner will be interesting.

Mrs. F., wife of a farmer, at the age of 70, was taken with a most violent fever, attended by a severe pain in the back of her neck, in the region of the third cervical vertebra. For three or four days she slept but little and suffered greatly. On the second day a diffused redness, like to that of erysipelas, spread over the post-cervical region, extending from the prominent point of the occiput to the square of the shoulders and from ear to ear, covering a space of nine by seven inches or about sixty-three square inches. This was the size of the anthrax obtained by careful measurement.

As the diffuse inflammation did not continue to spread, but speedily assumed the puffy swelling of a carbuncle, the diagnosis was soon confirmed, and a huge, swollen, doughy mass, showing the death of the cellular tissue, was the consequence. During the first four days the suffering was extreme, but under the action of belladonna, it gradually subsided and long before the suppuration had obtained vent, the patient was sleeping comparatively comfortable at night.

The prognosis looked forbidding. At the age of seventy, in a phlegmatic, short, heavy-set person, of not over four feet eight inches high, yet weighing about two hundred pounds,

the testimony of our best authorities was opposed to recovery. The usual surgical treatment almost universally recommended in such cases, is the deep crucial incision early in the attack. Owing to the age of our patient, her severe suffering, and the condition of her pulse, I hesitated to add to the huge inflammation the enormous open surfaces that the cross-cutting would entail. So, on the subsidence of pain, I abstained from the use of the knife, and by that decision, in all probability, the life of the old lady was saved.

After the use of belladonna, I gave her apis for two or three days, but saw little or no effect from it save the checking of the extending inflammation. Then anthraxin[30] was used, but could record no favorable impressions. Arsenicum seemed to do more for her case than any other single remedy. In the latter stages she received hepar[6 and 30] and mercurius[6].

When suppuration showed itself at points all over the doughy mass, I injected, two or three times, a disinfecting solution into the small openings, which corrected the offensiveness of the dying tissues. It was not until the end of the second week that on the running together of the smaller openings, one large enough was made by which we could lift out the tremendous slough, of from fifteen to twenty inches in size, leaving a hole in the back of the neck large enough in which to bury one's fist. After the slough was removed, we drew together with adhesive plaster the edges of this large open sore, the sides of which showed good, abundant and healthy granulations.

Throughout, the patient had good food, and all she wanted, or rather all she could take, as she suffered much from dyspepsia. She made a rapid recovery, with but little deformity from the cicatrix. One of the most wonderful results of the treatment of this case was the control, after the first two or three days, of the very severe pain, and giving the patient comfortable sleep nearly all night without a narcotic in any form. The belladonna was not in sufficient quantity to produce any hypnotism, as she never received over one or at most two drops of the ordinary tincture, in a half glass of water, of which solution two teaspoonfuls were given every one or two hours.

This case was so much of a curiosity that, at various times, I took five different physicians to see it, all of whom acknowledged it to be the most violent anthrax they had ever seen.

WOUND OF THE PERINÆUM PENETRATING THE BLADDER.

BY L. H. WILLARD, M.D., ALLEGHENY CITY.

A. G., age 24 years. A most peculiar and at the same time distressing accident happened to this young man on July 4th, 1879. He was walking along the railroad track when his foot slipped, and he fell upon a spike which entered the perinæum midway between the anus and scrotum. He said that at the time of the injury the pain was not severe. It did not prevent him from going to work on the next day and continuing at it until the third day. The wound had, by this time, become so painful that he was compelled to quit work and go home. A poultice was applied to the wound for three days, at which time a free discharge was established with great relief to the patient. He resumed work, but was annoyed by a constant trickling of fluid from the wound, while the desire to pass water was less frequent than normal. He worked throughout the month of July without any change in the local conditions. He kept cotton-waste to the parts, changing it as often as it became saturated with the discharge. His health seemed to be failing, and I was called to see him. On making an examination I found an opening in the median line midway between the anus and scrotum. An exploration through this opening showed a fistulous track, with the diameter of a quill, extending into the bladder, passing immediately back of the prostate gland; the gland was enlarged and painful. A small sized bougie passed readily into the bladder. No urine was voided by the urethra. The only treatment employed was to place the patient in a recumbent position upon the chest and abdomen with the hips elevated. On the first day of this treatment all the urine secreted passed, as usual, through the wound, but on the second day he passed a small quantity through the urethra. From this time he improved rapidly.

Finding so much relief from the position advised he would maintain it for several hours at a time, no urine in the mean time passing from the wound. Bougies of increasing size were passed through the urethra every other day for two weeks, when they were dispensed with. His appetite improved and his spiritless condition gave way to cheerfulness. The urine ceased flowing from the wound on the 18th day of treatment, and he was soon discharged cured.

When first seen I thought an operation would be necessary, such as paring the edges of the fistulous track, and thus allow of adhesion through inflammatory action. The position in which the patient was placed removed the irritation due to the escaping urine, and favored the production of natural granulations. No medicine was given.

Dr. Morgan: The paper of Dr. Willard's is a good illustration of the principle that, if the natural opening is gotten into a proper condition, the false passage will soon heal.

Dr. Buck: I have seen fistulæ of the urethra cured by the passage of large bougies.

A case of neuralgia of the inferior dental nerve, that had been operated on, but in which the pain returned after a time, came to me for treatment. I found that china was indicated and gave six doses of the thirtieth dilution. The pain was relieved and has not returned for three years. In a case of sciatica of seven years' standing I gave silicea, with entire relief. I seldom use surgical means in nerve diseases.

The question arises, what is neuralgia?

I believe these nerve troubles are due to a deposit within the sheath of the nerve causing pressure on the nerve substance. The nerve is not too short. If you pass a sharp pointed knife through the nerve at its exit through the foramen, it will give entire relief from pain.

Dr. Cooper: The case of supra-orbital neuralgia reported by Dr. Willard has been under homœopathic treatment for eighteen or twenty years, having been under the care of my preceptor and myself before coming under Dr. Willard's care, and he probably received all the remedies that have any rela-

tion to such cases. The pain began to return about a year ago. The paroxysms of pain would return about every fifteen minutes, he not having entire relief for more than an hour at a time. The medicine that did most for him, in my hands, was atropine[12]. Higher or lower dilutions did not seem satisfactory.

Dr. Morgan: Was the function of the nerve restored after the operation?

Dr. Willard: It was, after three months.

Dr. Pitcairn: While I was still a student in college a lady came under my care who had supra-orbital neuralgia. All sorts of counter-irritants had been used without result. I was studying pulsatilla at that time, and believing that it was indicated I gave her that remedy in the one-thousandth dilution, and she has never had a return of the pain.

Dr. Buck: I would resort to excision of the foramen if I should meet with a case that would not be relieved by homœopathic medicines. In all the cases that I know of, the neuralgia has been on the side of the head in which the foramen was complete—that is, where the bone forms a complete arch over the nerve.

Dr. Morgan: That idea seems to be a good one, especially if periostitis exists. Was the nerve enlarged in Dr. Willard's case?

Dr. Willard: It was not.

Dr. Buck: I do not think the nerve is ever enlarged. The sheath may be.

Dr. Dinsmore: A few years ago a man came to me for treatment who had been struck in the orbital region of the left side. It is possible the little bridge of bone spoken of may have been broken, but as the man was very much intoxicated, I am not able to say. I gave him spigelia[3] and he never felt any more pain—was relieved before he left the office.

Dr. Van Artsdalen: In case there should be a deposit about the exit of the nerve, would remedies relieve the pain as quickly as Dr. Buck says china did in his case? I do not think a deposit sufficient to cause much trouble would be removed very rapidly.

Dr. Morgan: The use of zinc in opacity of the cornea and mezereum in periostitis would refute the doctor's belief.

Dr. Allen: In seventeen years practice I have failed but once to get results from homœopathic remedies in neuralgic affections. This case was one of sciatica in a patient who had incipient phthisis. The case was a very obstinate one. I think the phthisical habit interferes with the action of remedies.

Dr. Dudley: Has any one found benefit in sciatica from the use of gnaphalium? Dr. McCourt says he rarely fails when using it.

Dr. Buck: My theory in the case mentioned by Dr. Allen was that there were tubercles around the place of exit of the sciatic nerve from the sacrum.

Dr. Graham: I had a patient with sciatica who relieved himself sometimes with morphia. I thought the case was a suitable one for colocynth, but while taking this remedy he persisted, unknown to me, in using ten drops of laudanum four times a day. In two months he was cured.

Dr. Lee: I had a lady aged sixty-seven years who had pain in the right hip, extending down to the knee; worse at night and when warm; better when cool. Tartar emet.[6] every three hours, relieved her. She was better after taking two doses.

Dr. Pitcairn: I have a case of sciatica on hand in a patient who had ague three years ago, for which he had taken a great deal of quinine. The paroxysms are very severe, coming on every two weeks. The patient is tall and of light complexion. Colocynth, rhus, bry., china, have been used, but the greatest relief has been obtained by the use of the battery.

Dr. Caruthers: I had a case of neuralgia coming as the result of an injury to the knee. There had been pains in the course of the sciatic nerve, but when called to him the greatest suffering was in the crural nerve. The patient was unable to lie down or to extend the limb, and sat constantly in a chair. The pain was intense, causing great beads of perspiration to stand out over him during the paroxysm. The pain was of a drawing character and affected the cremaster muscle, causing the testicle of that side to be drawn up tightly.

Various remedies were tried with varying effect, but the greatest relief was obtained from the use of the battery. It seemed to mitigate the severity of the pains and to shorten the paroxysms. As I was removing from the town I had to take the battery from him, and I learned that he afterwards suffered as much as he had before using it. He died in less than a year, and at the post-mortem the sciatic nerve, for its first two and a half or three inches, was found enlarged, reddened and inflamed.

Dr. WILLARD: In traumatic forms of neuralgia we have enlargement of the nerves. In such cases it is perfectly justifiable to remove a section of nerve. In idiopathic cases I would hesitate to remove a portion of nerve with the expectation of giving permanent relief, for as soon as the functions of the nerve are restored there is a return of the pain.

Dr. WALKER: I have always treated cases of sciatica that come to me with homœopathic medicines. In one case of a lady who got an attack of sciatica from getting her clothes damp, the pain was in the left hip, better by motion, and as she had had rheumatism, I thought rhus should relieve her, and gave her the two hundredth. This did not relieve her, neither did bry. or puls. I gave her kali bi.[200], and she has never had sciatica since. I believe I never failed to relieve sciatica by the single remedy in a high potency. I sometimes give lower potencies, and have used the sixth.

Dr. PARSONS: I have found arsenicum beneficial in cases of sciatica after intermittent fever where much quinine had been used.

REPORT OF THE BUREAU OF PAEDOLOGY.

In the absence of the chairman of this bureau, the report was made by Dr. J. W. Allen, who presented the following papers, which were accepted and referred:

Intertrigo, by W. J. Guernsey, M.D.

Cholera Infantum, by the Lehigh Valley Society.

Clinical Cases, by T. M. Strong, M.D.

Magnesia Phos. in Brain Troubles of Infants, by J. C. Morgan, M.D.

INTERTRIGO.

BY WM. JEFFERSON GUERNSEY, M.D., FRANKFORD, PHILADELPHIA.

The word intertrigo, from *inter* (between) and *tero* (to chafe), is applied to an abrasion or chafing arising from friction of opposing folds of skin, consequently most frequently found about the groin, nates, perinæum, axilla and beneath the mammæ. It is aggravated by perspiration which macerates the epidermis and gives rise to a mucoid discharge. Obesity, infancy, hot weather, sedentary habits, teething, stomach and bowel irritation, and general disorders, all have their unfavorable influences, to say nothing of a psoric taint which, perhaps, is never wanting in such cases.

Severe dermatitis may occur and the affection pass into eczema intertrigo, with which it is often confounded by writers. Intertrigo is usually more sudden in onset; the secretion is thin, clear, mucoid, stains but does *not* stiffen linen, and is not viscid. Like eczema it is liable to relapse, so the allopathic writers state; but my experience, under homœopathic treatment, is, that like eczema, it does not.

My first cases of this affection were treated with fuller's earth applications, in conjunction with the internal remedy. Subsequently many other non-medicinal powders were employed under the belief that I could not expect a cure without them. Some time ago I discarded them all, and, since relying solely upon the indicated internal medicine, cure the cases in much less time and with less trouble to the nurse. If an acrid diarrhœa is the hindrance to recovery, the remedy should be chosen from among the following:

Arsen.	*Bry.*	C. v.	Graph.	Hydras.	Igna.	Iris v.	Lach.
Mer. sol.	Nit. ac.	*Podo.*	Puls.	Sepia.	Still.	Sul.	Verat.

Thus, prescribing for the "totality of symptoms," we cure the trouble and remove the cause. Washing aggravates some cases very much, and I am inclined to believe that every case will get well much quicker without it. Let the part alone and give a dose of the remedy, whatever it may be, and a most gratifying result will follow. It is to be regretted that we have

so few symptoms of this trouble recorded in our reportories. The following is all that I can find directly applying to the disease; but, as most of our cases present several or many general symptoms, the selection of the remedy is thus rendered more accurate:

Intertrigo (remedies in general).

Acon.	Agar.	Alco.	Alum.	Ambr.	*Am. c.*	Ant. c.
Arni.	*Arsen.*	*Bar. c.*	Bella.	Borax.	Bovis.	Cal. c.
Carb. a.	*Carb. v.*	*Caust.*	CHAM.	*China.*	*Cinnab.*	Colo.
Creos.	Copai.	GRAPH.	Grat.	HEP. s.	Hur.	Hydrs.
Igna.	K. carb.	Lach.	Lac. can.	*Lyco.*	Mag. c.	Mang.
ME. SUL.	Me. vir.	NA.CARB.	*Na. m.*	Na. ar.	Nit. ac.	Nux v.
Oleand.	Ol. an.	PETROL.	Phos.	Plan.	Plumb.	*Podo.*
Puls.	Rhodo.	Rhus t.	Ruta.	Squil.	SEPIA.	Silic.
SULPH.	Sul. ac.	Sum.	THUJA.	Zinc.		

Intertrigo, Anus (about the —)

Acon.	Alum.	Am. c.	Arni.	*Arsen.*	Asc. r.	*Bar. c.*
Bella.	Borax.	*Cal. c.*	Carb. an.	*Carb. v.*	*Caust.*	CHAM.
China.	Colo.	GRAPH.	Grat.	*Hep. s.*	Hydrs.	*Igna.*
K. carb.	Lach.	*Lyco.*	*Mang.*	ME. SOL.	Me. vir.	Na. m.
Nit. ac.	Na. ar.	Nux v.	Ol. an.	*Petrol.*	Phos.	Plumb.
PODO.	*Puls.*	Plan.	Rhus t.	Ruta.	Squil.	SEPIA.
SULPH.						

Intertrigo, Axillæ. Carb. v.

" **Bleeding.** Lyco. Me. sol.

" **Easy** (chafing.) Carb. an. Carb. v. Oleand. Sepia. Sulph.

" **Fingers** (between). Arsen. Graph.

" **Itching intensely.** Petrol. Rhus t. Sulph.

" **Knees** (bends of). Ambra.

" **Moist.** *Bar. c.* *Graph.* Lyco. *Petrol.* Rhus.

" **Nates** (between). Cal. c. Carb. a. Na. m. Sepia.

" **Offensive odor.** Lyco.

" **Perinæum.** Carb. v. Rhodo.

" **Scraping sensation** (with a). Phos.

" **Scrotum.** Arni. Na. c. *Petrol.* Plumb. *Sulph.* *Sum.* Zinc.

" **Stinging sensation** (with a). Phos.

" **Thighs** (near genitals). Am. c. *Bar. c.* Borax. Caust. Cham. *China.* Creos. *Cinnab.* Copai. GRAPH. HEPAR. K. Carb. Lyco. Me. vir. NA. C. Na. m. Nit. ac. *Petrol.* Rhodo. Rhus. *Sepia.* SUL. THUJ.

" **Toes** (between). *Graph.* Lyco. Mangan. Na. carb. Ph. ac.

" **Weather** (agg. by warm). Arni. Carb. v. Lyco. Nux v. Petrol. Sul.

CHOLERA INFANTUM.

BY THE HOMŒOPATHIC MEDICAL SOCIETY OF THE LEHIGH VALLEY.*

Cholera infantum is a disease affecting, principally, children under two years of age, and characterized by severe vomiting, purging, prostration, and followed in some cases by collapse.

Anatomical Characters.—Dr. Duncan says: "It will be readily understood that it is far from an easy matter to define precisely what are the essential lesions in time of cholera infantum. Having been so long confounded with entero-colitis, the lesions usually attributed to it are precisely those belonging to the latter affection. The pathologist must, therefore, seek for the true and proper lesions of cholera infantum in the comparatively rare cases in which this affection has appeared in the midst of good health, and has proved fatal during the acute stage. With this restriction, then, it appears that the only intestinal anatomical changes which can be regarded as constant and essential to the disease, are enlargement of the mucous follicles, and to a less degree of the glands of Peyer, and softening and in some cases erythematous inflammation with peeling off of the epithelium of the mucous membrane."

Clinical History.—The child may be suddenly attacked with vomiting and purging, or may have been suffering for a longer or shorter period with diarrhœa, when, from a sudden rise in the temperature, or from improper food, or poor sanitary surroundings, the true choleraic symptoms set in, viz: vomiting and purging. They are both generally violent. The material vomited consists, first, of what food and water there may be in the stomach, then of the water drank, and a serous fluid, with bilious material giving a greenish color to what is vomited. The vomiting may continue to be very violent, or, after a short time, may cease or nearly so. The diarrhœa is also very severe, the stools soon become fluid in character, and are generally large in quantity. They may occur only six or eight times in the twenty-four hours, but each one is of such a quantity that it seems to drain the

* The paper was prepared by Dr. E. D. Doolittle, Easton.

patient dry, or they may occur as often as every hour, or even more frequently. They consist of either a colorless or greenish odorless, or else of a yellowish or brownish fluid, containing thin feculent matter, these latter of a very bad odor. Thirst, generally for small quantities of water, is very great, even if the water drank is at once vomited. Soon the urinary secretion is decreased, there is usually but little fever, the pulse is always accelerated from the commencement of the attack, and becomes very rapid, running, in some cases, from 120 to 150 per minute. It is very weak and compressible, the skin is dry and harsh, the head and abdomen generally hot, and, in severe cases, the extremities are cold. Emaciation begins and proceeds rapidly—one or two days may suffice to change a rosy, plump infant into a pale haggard looking sufferer. Prostration attends this condition, the child not seeming to care to sit up. At first, the little one is restless, but as the disease progresses and debility becomes great, it is more quiet. If there is no reaction, in the stage of collapse, the child lies in a partial doze, with half-closed eyes, the head rolls from side to side, the patient becomes comatose, and death follows quietly or may be preceded by convulsions.

Causation.—Cholera infantum is caused by the intense heat of summer, especially by a very sudden rise in the temperature to 85 or 90° F., or even higher; improper food; early age; bad sanitary surroundings, and dentition. As before stated, it is confined principally to the first two years of life, as, according to the tables of Dr. Emerson in this disease, it appears there were 2122 deaths during the first year, 1186 in the second year, and only 268 between the second and fifth years.

Pathological characters.—Underlying the morbid conditions already mentioned, there is reason to believe that the chief seats of diathetic modification in cholera infantum are the blood and the sympathetic nerve. In proof of the latter, Moreau and Asp ascertained by experiment that, when section was made of the nervous branches distributed to the intestines, a copious flux of serous fluid took place into the bowels.

Diagnosis.—The diagnosis of cholera infantum is not diffi-

cult. The main points are, severe vomiting, fluid stools, rapid prostration and emaciation, great thirst, rapid pulse, little or no fever, threatened or real collapse characterized by cold surface, feeble pulse, decrease in the urinary secretion, and comatose condition. These conditions, taken in connection with the age of the patient and season of the year, render the diagnosis easy.

Prognosis.—Cholera infantum is a dangerous disease. Some cases are said to end fatally in one or two days. I have never met with such a case. They generally run from four to ten days. Some cases are followed for an indefinite period by simple or inflammatory diarrhœa. Cases beginning early in the season are more apt to be thus followed. We find that where the sanitary surroundings are bad, especially in the cities and larger towns, among the poor who are unable to remove from such surroundings, or to properly clothe and give their little ones proper food, or in the country on the low lands near water, where they are exposed to the chilly, damp air at night, and to the intense heat of the sun during the day, these are the cases that prove the least amenable to treatment.

Treatment.—We cannot be too careful in regard to diet, dress and exposure to the open air as prophylactic treatment. If the amount of breast milk is sufficient and good, the child should not be weaned till it has passed through its second summer. No child should be weaned during the summer except for very important reasons, as the change from breast to artificial food during warm weather is apt to bring on disease. If the child is bottle-fed too much care cannot be taken to keep the milk sweet, and to keep the bottles, nipples and tubes sweet and clean. As soon as they are used they ought to be cleaned and put in cold water, in which is dissolved a little soda. The dress should be according to the heat of the day, not so much on as to keep the little one in a perspiration all the time, and care should be taken, if the day is damp or the temperature suddenly becomes cooler, to add a flannel skirt. Children should pass as much time as possible in the open air, avoiding, of course, the heat of the sun during the middle of the day. If a child has any symptoms pointing to cholera in-

fantum, if its surroundings are bad, it should, if possible, be at once removed to a healthy locality. The air of the sea-shore will almost always agree with such cases, but a moderately elevated locality out of town, with good milk and pure water, is far preferable to the town at any stage of the disease. When the true choleraic symptoms have developed the child should be kept as quiet as possible and in a horizontal position; the room should be kept well aired; care should be taken in case of the body or any part becoming cool, and we should try, by all artificial methods, to supply the necessary warmth.

If there is much vomiting milk should be withheld for six or eight hours, and then given in small quantities diluted with barley water, or simple water and a small quantity of lime water added. If this is not retained, stop the milk entirely and give barley water, toast water, etc. I have found the preparation called imperial granum to work well in several cases where milk was not retained, As soon as the stage of reaction begins; food must be carefully given, we may try a small quantity of Liebig's extract of beef, or beef tea, or thin chicken broth, and, if this is retained and the little one seems to wish for more, the quantity can be gradually increased. When milk is given, it ought to be very much diluted for several days. We will find that in cases where milk does not agree, it will require considerable study to find the right article, as what agrees with one child may not agree with another; also, what agrees at one time may not at another, as will be shown by its being vomited or passing in the stools indigested. Of course, when this occurs, another change in the diet will be necessary. The remedies that have proved to be of the most use to me in this disease, have been veratrum album, arsenicum, ipecacuanha, croton tiglium, cuprum met., camphor, and in cases that have seemed to point to this disease, aconite, belladonna, and chamomilla, or if hydrocephalic symptoms set in, helleborus niger. Some of the special indications are:

Verat. alb.—Attack sudden; violent, watery vomiting and purging, cold surface, prostration, vomiting excited by the least amount of liquid taken; great thirst for large quantities

of water, excessive weakness. I do not agree with Dr. Bell, who says, in his monograph on this disease, "It is useless to give veratrum in painless cases." I find, that when the symptoms call for it, it is just as efficacious, as when there is much pain.

Arsenicum alb.—When the vomiting is not so copious, consists of watery, slimy, or black matters; vomiting and purging occurs at the same time; thirst for small quantities of water, followed at once by vomiting; child very restless; small watery offensive stools, sometimes accompanied with tenesmus: urine suppressed; cold extremities; great weakness follows each stool.

Camphor.—When other remedies have failed, skin is cold, still child will not remain covered; vomiting and diarrhœa may have ceased, but there is great prostration and coldness; these cold spells coming on at night and passing off in the morning; cold sweat on the face.

Ipecac.—In cases of almost constant nausea; if there is any vomiting it is generally scant, of jelly-like, green mucus; diarrhœic stools of greenish lumpy matter, smelling sour.

Cuprum met.—When there is a tendency to convulsions; violent retching from spasmodic muscular action.

Croton tig.—Has been of service in cases where the vomiting had ceased, but the stools were large and watery, coming out like a shot; aggravated by eating or drinking.

China.—After the disease has been checked, china is very suitable on account of loss of liquids and feebleness of digestion.

Calcarea phos.—Is indicated if there is danger of relapse and the child is teething.

CLINICAL CASES.

BY T. M. STRONG, M.D., ALLEGHENY CITY.

Follicular Tonsillitis.—J. S., age 11 years. This patient was taken, on April 23d of the present year, with a high fever, but slept pretty well through the night. Her mother gave her bellad., which a younger sister was taking. On the 24th

an examination of the throat showed both tonsils to be red and swollen, the right one the worst. Whitish spots were seen on the right tonsil and one or two on the left. The throat felt painful only when swallowing. There was some sickness at the stomach, eyes heavy, headache, tongue not coated. Had had several attacks of diphtheria (?) according to the statement of the mother. Merc. iod. flav.^{3x} was given. On the 25th there was an improvement in the condition of the throat, but the fever had been very high in the night. On the 26th the tonsils were still swollen, but by the 28th all trouble had disappeared.

Follicular Tonsillitis.—M. C., age 9 years. On April 22d complained of high fever, sore throat, headache and sickness of the stomach. Bell.^{6} was given. On the 23d the fever was less and she seemed somewhat better, so the bellad. was continued. On the 24th there was a slight swelling of the left tonsil with a few whitish spots thereon. The fever had been high on the previous afternoon and night. She was thirsty; the headache was better and the appetite was not altogether wanting; soreness of the throat not relieved, both tonsils were swollen and of a dusky-red color. Merc. iod. flav.^{3x} On the 25th all of the symptoms were lighter, and on the 26th the patient was discharged cured.

Diarrhœa.—F. H., age 6 months, emaciated, complexion pale. On May 25th he had flashes of heat through the day, with a steadier fever at night. Picking and pulling at the ear with spells of crying and an occasional wheezing cough were the objective symptoms. Puls.^{3} was given. This removed the ear symptoms, but the high night fever and chest symptoms still continued, to which was added sweatings at night. Calc. c.^{30} was given. On June 2d there was present a greenish-yellow, irritating diarrhœa, but the cough and fever were relieved. Cham.^{3} was given for the diarrhœa. On the 6th the stools were still frequent, offensive, of chopped appearance, and the cough was worse. Sulph.^{12} This child would worry and fret, especially at night, but on attracting his attention he would be bright and cheerful. He was still wasting away, and as his mother was weak and delicate, she was directed to wean

him; this was done, and the sulph. continued. At the end of a month the stools were normal, appetite good, and he was apparently gaining in flesh. The crying at night still continued, for which bell. was given, but at the date of this writing the trouble had not been relieved. [Lyc. finally cured.]

Diarrhœa.—H. D., age 6 months, of active, stout build, had yellow, offensive, slightly irritating stools, colic-pains, with crying and fretting. Cham.[3] Four days later the stools were not so frequent, but were of a yellow, watery consistency, containing whitish curds, offensive and still irritating; mental condition about the same. Some vomiting. The remedy was still continued, and in a few days the child was dismissed cured.

Catarrhal Bronchitis and Diarrhœa.—L. B., age 21 months, had a loose cough, aggravated at night, for which merc. viv.[6] was given. On May 25th there was a free catarrhal discharge from the nose, with increased rattling of mucus through the bronchia with wheezing respiration, fever not marked. Tart. e.[12]. On the 26th she was better, and in a day or two more was entirely relieved.

On July 6th this same patient was taken with a watery, painless, offensive diarrhœa, accompanied with flatulency. Some relief was given by the use of pod., but on August 3d the condition was again aggravated. The stools occurred in the early morning and during the forenoon; slight flashes of heat; appetite good. Pod.[3] was again given, but failing to relieve, sulph.[12] was given. This remedy removed the entire trouble. The general experience this year, as reported by one and another physician, has been the failure of pod. in apparently well indicated cases, and the equally good results when these cases received sulphur.

Athrepsia.—H. S., age 7 months, was first seen July 20th. He had had a diarrhœa for two or three months, and was very much emaciated. The stools were yellow in color and aggravated at night. There was great thirst, crying and restlessness, with occasional vomiting. Merc. viv.[6] was given, but on the next visit the stools were brownish, thin and offensive. Silicea[12]. On the 27th the mouth and tongue were dryer than normal, with a white central coating on the tongue, and aph-

thous spots scattered over the mucous membrane. Arsen.[6] was given, and on the 29th there seemed to be some improvement. In the afternoon of this date he seemed "to grow weaker," passed into a semi-stupor, and died in the early morning of the 30th. He was given condensed milk, diluted about one-third.

BRAIN TROUBLES IN INFANTS: MAGNESIA PHOSPHORICA.

BY JOHN C. MORGAN, M.D., PHILADELPHIA.

During the past six weeks at Ocean Grove I have treated four cases of brain trouble in infants. Dietetically, imperial granum proved valuable. Magnesia phos.[30] benefited all the cases, and cured two. One of the cured cases was initiated by true cholera infantum. This was followed by general and long-lasting convulsive state of moderate violence with unconsciousness and diarrhœa. Aconite was used successfully some time after for sleeplessness.

The other case had taken anodynes for a cough and showed the characters of opium poisoning.

Dr. MARTIN: I think the author of the article on cholera infantum has misquoted Bell when he states that he says verat. is useless in painless cases. The statement that he makes is that it is "seldom indicated in painless cases."* The author has omitted to mention pod., lauroc., apis and æthusa among his remedies for cholera infantum. Laurocerasus saved one case for me in which I expected nothing but death. A child of eight months had been sick for some time and did not seem to be getting any benefit from treatment. Its condition, when I first saw it, was as follows: Frequent greenish mucous stools; entire loss of appetite, but thirsty; the child would not take anything but water, and the water could be heard gurgling down the œsophagus to the stomach; respiration very

* Bell on Diarrhœa and Dysentery, second edition. In the first edition it is as quoted by Dr. Doolittle.—PUB. COM.

slow and weak; pulse almost imperceptible; extremities as cold as in death, with coldness of the entire body. I gave laur.[30] in water and the child has steadily improved.

It is very difficult to get *the* food for *the* case. Nestle's food has served me well, also Mellin's food, a new article.

Dr. Walker: I have had some experience in this department. My own little girl, when a year and a half old, had diarrhœa, with the back of the head hot, and sleepless at night. She was weaned and fed on Canfield's condensed milk. Cham., bell., calc. phos. were given successively; also pod., which seemed indicated by the rolling of the head, with stools like soaked flour. As she did not improve at home we took her to Atlantic City. She seemed to be in a very nervous condition, which was relieved temporarily by warm baths, giving them as often as three times a day. They always seemed to quiet her, and she would get one or two hours sleep after her bath. In bathing a child I have it taken from the bath and immediately wrapped in a blanket; then with a soft towel, introduced under the blanket, it can be wiped dry.

There seemed to be too much excitement around the child, and we took her home and she began to take more notice of things about her. We gave her calc. phos.[6] and continued the warm baths, and in three or four days she was relieved of all dangerous symptoms. I think the change of air was beneficial, but the excitement was too great, and taking her home again relieved the nervous symptoms.

I use calc. phos.[6] physiologically in my own children and also in those of my patrons, giving it three times a day. When the child is continually biting at its fingers or other things, with heat in the back of its head, and afterwards vomiting of curdled milk comes on, chamomilla may be indicated. If these apparently trifling symptoms are attended to at once you will prevent greater evils. With the greatest care on the part of the physician, one act of carelessness on the part of the nurse, such as neglect to properly cleanse the nursing bottle, or other apparently slight direliction may undo all his efforts and cause his patient to become worse.

We must pay as much attention to diet as to medicine in

treating cholera infantum. There is a great variety of infant foods, and that one must be selected which is most suitable to the case in hand. The food used at the Brooklyn Maternity is made by boiling Graham flour in a bag in water for two hours, then after removing the hard crust or shell, grate it down and dilute with milk, giving it in a feeding bottle. Horlick's and Mellin's foods are the same thing. I have not been as successful with these as some other physicians have been. They contain a chemical soda and potash, while the natural grain contains the salts in their natural condition. They cause acidity of the stomach and interfere with digestion.

Dr. Morgan: I requested Mr. Canfield to prepare milk from cows whose calves are only two or three weeks old. This he has done, and it is in the market under the name of condensed new milk.

Dr. Walker: I used the Alderney brand of condensed milk, which is very good, but I occasionally found it to contain masses of cheesy matter a cubic inch or less in size. These lumps smelled like old cheese, and under the microscope no milk-globules could be found in them. I then tried the Baltimore and also the Eagle brand, but had the same trouble. In testing good milk of various kinds, I found Canfield's the best. Constipation and suppression of urine are frequently met with in infants fed on artificial foods. In many instances Nestle's food will relieve the constipation caused by the use of condensed milk.

Dr. Cooper: I got a preparation of condensed milk on Dr. Guernsey's recommendation, but it tasted so strongly of copper that it was not fit to use.

Dr. Dinsmore: Two years ago my wife had typhoid fever and could not nurse her babe. I first used the Anglo-Swiss food, but the child threw it up. The Eagle brand of condensed milk was given with the same result. We then got the Osprey brand, which seemed to agree, and served the purpose until the mother was again able to nurse her. It is sometimes difficult to get it fresh. I would ask Dr. Walker how long it can be kept?

Dr. WALKER: I have kept it six weeks without detriment. It depends on its freshness when it leaves the factory. I do not believe in using a tube to the nursing bottle, but prefer using the simple nipple slipped over the neck of the bottle.

Dr. BETTS: I have always felt sorry that I could not unreservedly endorse any of the brands of condensed milk. It is such an easy way to furnish nourishment that it is very desirable, but there is as much difficulty in selecting condensed milk as there is in cow's milk. When you get good cow's milk there is nothing better. Horlick's food, prepared with this is a good article of diet.

I think the illness of Dr. Walker's child was caused by the use of condensed milk. The symptoms it had are those that are developed when condensed milk is used exclusively.

Dr. DUDLEY: I think one reason that we disagree in regard to the use of artificial foods is that no one food will suit one child at all times, except the mother's milk. As soon as you abandon the milk of a healthy mother, you must expect in most cases to vary the diet. The food of the human organism must vary, except the mother's milk for infants, and even this varies with the mother's change of diet. I believe a change of foods is beneficial because of this physiological necessity for change.

There is one kind of diarrhœa in which every stool contains more or less indigested, cheesy, curdy milk, which I relieve by changing the diet. I cut off all milk, and give rice water, barley water, sugar water, or something similar, for a day, and then cautiously resume the milk. In this condition I frequently change from cow's to condensed milk or *vice versa*.

Dr. BETTS: Would you change the diet of a child while it continued to thrive?

Dr. DUDLEY: I would not; but, if even a slight change appears, it is sometimes best to substitute another form of diet.

Dr. MARIA N. JOHNSON: Do I understand the doctor to say that no child can thrive without a change of diet?

Dr. DUDLEY: I think it best to change. You can starve any animal by confining it to one article of diet.

Dr. MARIA N. JOHNSON: I know two children that were

raised on cow's milk alone. One was fed for a year and a half on the milk, diluted at first. The milk was prepared in the following way: Add a small quantity of salt, enough to make it taste like the mother's milk, a little sugar, and a little water. The milk is then put on the fire in a boiler and brought to a scald. Prepare enough in the morning to last all day, keeping it in a cool place, and take out just enough for one feeding, as the child needs it. If any is left, do not put it back with the rest, but keep it separate or throw it out.

I have never used the prepared foods except in cases where I cannot have control of the matter. I use milk, and can get good milk in Philadelphia. The preparation mentioned above is made of milk, one pint, water, one gill, and sugar and salt sufficient.

Dr. Evans: Would you give this food just as frequently as the mother would nurse the child? I find a peculiar sweetness in both Nestle's food and the Eagle brand of condensed milk that causes vomiting.

Dr. Cooper: There are about twenty per cent. of the children of our cities that seem to thrive on condensed milk after a certain age. During the season of high temperature it is difficult to get a food that will suit all children. In one class of cases the amount of food necessary soon causes vomiting and purging. The kind feeling of the mother or nurse often sacrifices the child from the fear that it will go hungry, and they give food too often. In children of six or seven months it is a good plan to let them have a rasher of bacon to suck. It changes the excretions, if the discharges are greenish and slimy, and where there are griping pains. If the caseous portions of the milk are passed through the bowels indigested, or are vomited, the milk must be stopped and the food changed.

Dr. Lee: I am an advocate of condensed milk. It is better in the summer season, unless you can get the family to keep a cow, and take extreme care in the feeding of it. The care of cows is very important. One person only should superintend the feeding of the cow, and it should never be run from barn to field, for in such a case the milk will always

cause sickness. I do not believe in changing the food while the child continues to thrive.

Dr. MORGAN: Have you noticed the effect of pasture weeds on the milk?

Dr. LEE: I had a case this summer where, the cows having eaten rag weed, the next day the child took sick. When I examined the milk I could readily detect the taste of the weed.

Dr. VAN ARTSDALEN: I do not think the milk of one cow is preferable to that from a number of cows. While the cow is carefully kept on one food it will do very well. In cases where I cannot get pure milk I use Hard's food.

Dr. DUDLEY: The best food for a child is its natural food, and we should try, by all means, to preserve this. The farmers in the country where I formerly lived always take care to pick up all the apples from the ground where cows are pastured before turning the cows in. It spoils the milk.

Dr. VAN ARTSDALEN: That is true if the cow is not fed on apples regularly. If you give a cow an occasional feed of apples you may lose as much as a quart of milk a day.

Dr. PITCAIRN: I do not believe that any one food will suit all children. This is true in adults, and equally the case in children. In one case we exhausted every means in trying to find suitable food, and began giving the milk as it was received from the milkman, and it suited admirably.

Dr. MARTIN: I have an idea that in this matter the difficulty is that probably the right food is given, but the right remedy is not.

Dr. WALKER: I believe with Dr. Martin, but omitted it before. I always try remedies first. In children with infantile diarrhœa, if you give ordinary beef tea, it will cause dysentery. The better way is to prepare it cold, by cutting the beef into small pieces and letting it soak in cold water for two hours, for heat coagulates the albumen.

I kept one child on Crew's prepared flour in water. Biscuit and cream makes a good food. I believe that milk absorbs effluvia. In one case where the diet was changed from condensed to cow's milk, the milk was put in the cellar to keep it cool, but it was discovered that sewer gas was absorbed by the

milk (probably), and at two years old the child went through all the stages of typhoid fever.

In Kansas the cattle eat a weed that poisons the milk and kills the children. Last summer while going through Kansas *en route* to California, I noticed that the milk, though thin, had an agreeable taste. On coming back, the cows were being pastured on the prairies, and the milk was bitter.

Dr. THEO. M. JOHNSON: Has arrow root been mentioned? I frequently use it. I stop the use of all other food and give this, and when the stomach is better I return gradually to the milk.

Dr. MORGAN: Have any of you used white of egg mixed with water and strained? It is very important.

Dr. COOPER: When there is strong acid reaction, or when other foods become sour, I make use of albumen, particularly where there is an aphthous coating on the mouth and tongue. Sometimes salt and butter are added.

Dr. PARSONS: I find considerable difficulty in relieving cases of intertrigo with internal remedies because the irritation is continued. I have used pulverized hydrastin.

REPORT OF THE BUREAU OF MATERIA MEDICA.

The chairman of this bureau being absent, and no papers having been received, there was no report.

REPORT OF THE BUREAU OF CLINICAL MEDICINE.

Dr. C. F. BINGAMAN, chairman of the Bureau of Clinical Medicine, presented the following papers, which were accepted and referred:

Reflections on Diseases that Usually Occur but Once in the Same Individual, by J. C. Burgher, M.D.

Vaccination and Small-pox, by J. H. Marsden, M.D.

Diphtheria: Thirty-eight Cases, by E. C. Parsons, M.D.
A Case of Membranous Croup, by W. J. Martin, M.D.
A Case of Intermittent Fever, by J. C. Morgan, M.D.
Constipation, by H. N. Martin, M.D.
Aconite in Backache, by W. J. Martin, M.D.
Chorea, by the Philadelphia County Society.
Treatment of Diphtheritic Croup, by the Allegheny County Society.
Diphtheritic Croup, by J. S. Boyd, M.D.
Rheumatic Meningitis, by C. F. Bingaman, M.D.

REFLECTIONS UPON DISEASES THAT USUALLY OCCUR BUT ONCE IN THE SAME INDIVIDUAL.

BY J. C. BURGHER, M.D., PITTSBURGH.

Those familiar and somewhat remarkable diseases, from which but few escape, are not numerous but highly suggestive. The obscurity of their etiology, history, course, characteristics and propagation make the subject a study, both interesting and profitable. The incubative period, the definite course, the characteristic eruption or entire absence of the same, the sequelæ peculiar to each, and the specific properties of the virus by which each is conveyed, diffused and reproduced, as well as the explanation of the law that exempts the subject from future attack, are all matters of pathological interest involving questions of practical value not yet satisfactorily explained. While it is true that controversy has made itself busy with various phases of the subject, it has done but little to remove the obscurity that underlies it.

The simple enunciation of the well known fact, that certain diseases that run a more or less definite course and are communicable from person to person by some specific infection, the origin of and nature of which are still unknown, occur, as a rule, but once in the same person, affords a theme for interesting, if not profitable, speculation, in regard to the abstruse problems they involve in the philosophy of life.

The histories and mysteries of these varied affections are too

complex and extensive for due consideration in a single essay, and possibly too intricate and recondite for solution with our present knowledge. Future observation and investigation may or may not result in the demonstration of a common origin of this class of diseases now regarded as entirely distinct in their character, etiology and mode of propagation. While this law may possibly be applicable to all the genera of diseases as arranged and classified by our present nosology, it is peculiarly suggestive of the *possible* common origin of those of an epidemic, infectious and contagious nature, as for instance scarlet fever, measles, mumps, etc. May it not be possible that these diseases, as well as many others, chiefly incidental to childhood, have virtual identity with certain forms of other disorders occurring in adult age, the operation of the same morbific cause varying according to circumstances, of which age may constitute one important factor.

I am not prepared to affirm that the materies morbi is identical in any two diseases. Indeed, from the diversity of symptoms, course, duration and sequelæ, I am inclined to assume that the morbific cause is different in each; and yet there may be relations more intimate than those that form the basis of our present classification. It will, I think, be conceded that there are many conditions capable of producing a different aspect of the same disease in distinct individuals, whether resulting from a common or a specific source. The season of the year, telluric influences, atmospheric conditions, as regards temperature, moisture, electricity, ozone, etc., must all be duly considered.

Then, again, we have the circumstances of locality and surroundings; the age of the persons exposed; their different temperaments and habits; the influences of former affections; the incidental direction of the morbific agent to some particular organ or tissue of the body; the quantity and intensity of the noxious agent itself, as well as the hereditary tendencies of the individual, may be conceived as so many modifying conditions, that tend to obscure the origin of numerous maladies, and also to modify or intensify the disease in individual cases. And, yet, these complicated conditions make *certainty* only the *more un*certain.

Measles, scarlatina and whooping-cough are often singularly concurrent in the same district, at or about the same time; and as variation of this fact it may be stated that it is not uncommon for one of these diseases to be exceedingly prevalent in a particular locality, while at the same time another one prevails in contiguous places. Whether inquiry begin with the exanthematous diseases, such for example as small-pox, scarlet fever and rubeola; or those in which the exanthem is absent, as for instance parotitis, tussis convulsiva and relapsing fever; equally are we drifted into the domain of certain common symptoms, sufficiently close in character and frequent in occurrence, to suggest the possibility of a community of origin.

From the true petechial eruptions, which mark more or less distinctly the severe forms of cerebro-spinal fever, to the usually slight and quickly fading spots of typhoid, we have every degree by which to connect the eruptive tendency with the other symptoms most characteristic of these diseases. The simple fact that a certain limited number of diseases of definite course and communicable from person to person by some specific infection, as a rule, occur but once in the same individual, opens a field for speculation in regard to the cause, or causes, of subsequent immunity. Our familiarity with the facts is probably the main reason for not more fully appreciating the great wonders involved both in the law of their propagation and the principle which secures subsequent exemption. That this future protection is not due to the eruption is clearly demonstrated by the fact that persons are equally secured against a second seizure of certain disorders that have no eruption, as, for instance, parotitis and tussis convulsiva, which protect the individual, who has once had them, from a subsequent seizure, with as much certainty as does small-pox or scarlatina. And, hence, we are forced to conclude that the exemption is due to some other cause or causes than the eruption. It is equally evident exemption does not depend on the prodromal stage or the length of the period of incubation; since from *two* to *six* days complete this period in scarlet fever and whooping-cough, while from *ten* to *fifteen* days are allotted to the developement of variola, rubeola, parotitis and typhoid fever.

Should the preliminary question arise, in the mind of any one, as to what diseases are properly included under the title of this paper, I reply, that medical opinion does not wholly agree on this subject. As an example, I may instance the well known fact, that formerly, an attack of yellow fever was regarded as affording complete immunity to the subject from subsequent seizure, but the fatal epidemic of 1878 effectually dispelled that illusion; since many, who had recovered from a former attack, were the second time brought under its malign influence and succumbed to its malignant sway.

Rubeola, varicella, variola, scarlatina, parotitis, typhoid, yellow and relapsing fevers, as also tussis convulsiva, have an incubative stage of varying periods. The first four have an eruptive stage, also, generally well marked and running a more or less definite course; all of which exempt the subjects of them from subsequent attacks—except, perhaps, in rare instances. In my present inquiry, therefore, in regard to the cause or causes of future immunity, I propose to limit my argument to a very brief consideration of the examples furnished by the contagious exanthemata, respecting which there appears to be more certainty of protection from future attack.

I have selected small-pox, scarlet fever and measles, as seemingly furnishing the facts that best fulfil all the terms of the intricate problem, and from which, probably, an answer may be obtained, if obtainable.

Varicella, whooping-cough and mumps, have an intimate connection with the subject and might be included, since they have a prominent place in the nomenclature of contagious diseases that occur but once in life, and therefore come within the range of the present inquiry, but with so many deviations of character, that, to include them, would only add to the difficulty of arriving at a satisfactory solution.

The problem to be solved may be formulated as follows: What change, if any, takes place in the living body, affected by a given disease, which prevents the same cause from again producing the same morbid actions in the same individual, except in rare instances, or after an uncertain lapse of time? It is but a natural and reasonable conclusion to assume, that

the facts, when ascertained, will demonstrate from whence this singular change results, and establish the fact of its definite course and its pathological character. The deep arcana of nature may yet disclose to the earnest, persevering investigator that the agent in the production and propagation of such disease must, of necessity, be a specific virus, received into the body from without, and not generated within it; and earlier or later evolves the series of changes that ensue.

Again recurring to the main question, we may enquire, whether there is any known phenomenon, or physical analogy, that will illustrate, however generally, this remarkable influence on the system? Or, in other words, to be more explicit, in what parts of the body (if in any special parts) do the changes take place that produce these wonderful effects and secure these marvelous exemptions? And, secondly, in what may these changes themselves be presumed to consist?

The first question is that in which we seem to have made the nearer approach to solution. And, at the risk of forcing an hypothetical argument to solve the obscurity involved in the investigation, I take the ground that it is not only possible, but highly probable, that future exemption is due to some change in the constituent elements of the blood. I assume that the blood is the direct medium of infection, and that in the metamorphoses of the component parts of this fluid, may be found the phenomena that bars from subsequent attack. In what these changes consist is yet an unsolved mystery. You are well aware that the blood is formed chiefly from the chyle, and acquires important properties by respiration, in the elimination of carbonic acid and the imbibition of oxygen. It circulates through every organ and tissue of the body, and distributes its nutritive properties to every texture, and is the source of every secretion. Physiologists tell us that human blood is composed of water, albumen, fibrin, serolin, corpuscles, cholesterin, fatty matters, animal coloring substances, and different salts, as the chlorides of potassium and sodium, phosphate of lime, subcarbonate of soda, lime, magnesia, oxide of iron, lactate of soda, etc. And now the questions come up, if the immunity from a second seizure of certain diseases is owing

to changes that were effected in the blood during the first attack, in what do these changes consist? Of what constituent element is it deprived; or with what additional element or principle is it supplied? These questions have not as yet been definitely answered. The theory of a *contagium vivum* that enters the system from without, instead of having its genesis within the body, may serve us to some extent in unraveling these mysteries. It is a generally recognized fact that, in these diseases, we have a zymotic process to deal with. Chemists tell us, that if yeast be placed in a fluid containing sugar, fermentation results, and the saccharine principle is destroyed. And, further, the fermentation once completed cannot be reproduced even by the further addition of sugar, as the fluid after having once undergone the process of fermentation will not again respond to the action of the yeast. Now, it appears to me but reasonable to suppose, that this remarkable class of diseases, that but few escape, when successfully surmounted imparts an absolute or relative immunity for a more or less definite time in all, and in a large majority of cases, during the life of the individual. In this class of diseases, as before stated, we have to deal with a process of fermentation; and the supposition is certainly plausible, that in all diseases that invade the human organism but once in life, it is somewhat analogous to that which takes place in the saccharine fluid to which yeast has been added. My own impression is that there is, during the course of the diseases that secure immunity from subseqent attack, a change or destruction of one or more of the chemical elements or morphological constituents of the blood, the presence of which is necessary for the reception and development of the *contagium vivum* of the malady.

SMALL-POX AND VACCINATION.

BY J. H. MARSDEN, A.M., M.D., YORK SPRINGS.

The prevailing disposition of the present day is to unsettle all that has been regarded as finally settled in the past, and to call up for renewed discussion much that has been considered

as satisfactorily proven. This tendency is not confined to one department of human investigation and thought, but to some extent to all. Once a belief in a great first cause, an omniscient and omnipotent Creator was entertained generally by all, "By saint, by savage and by sage." Now, the very existence of such a being is by many strenuously denied, and treated with supercilious contempt, and his supposed works assigned to a mysterious co-operation of forces, producing results seeming to require infinite intelligence as well as power. The simplicity of worship once generally adopted by Christian people as most pleasing in the sight of Him who regards the sincerity of the heart, rather than pomp and outward show, is now being exchanged for an extreme ritual, as if the divine approbation could be better secured by curiously selected colors in sacerdotal robes and attitudes and genuflexions.

A similar ficklessness in human thought is manifested in the change of confidence with many in regard to the protective power of vaccination against small-pox. This disease was once one of the most fatal scourges of the human race. Even in rural districts it was a subject of dread in the early and middle part of the last century. Vaccination was proposed, as known to us all, by the immortal Jenner, and treated with the usual opposition and contempt encountered, at first, by all important truths. Through its own merits, however, it gradually worked its way to a pretty general acceptance, and this was followed by a wonderful diminution of small-pox epidemics. So great was the change that it was long after I had reached the years of manhood, that I knew to occur in the district to which I belonged, even a sporadic case of the disease. I was vaccinated in infancy, and one of the first subjects of that operation in the neigborhood in which I was born, I found as I grew up sufficiently to have my attention engaged upon that subject, that all, or nearly all, my older relatives had had small-pox either by innoculation or contracted in the usual manner. It was then no uncommon thing to meet with visages deeply pitted and disfigured through traces of that disease. We know this is not now common, except perhaps in the case of foreigners, and not nearly so

much so, even with them, as formerly. The above general facts certainly afford presumptive evidence of the repressive power of vaccination.

It cannot be denied, however, that small-pox is again prevailing more extensively as an epidemic than it did some years ago. Hence those given to change precipitately reach the conclusion that vaccination is unavailing, and some even go to the extreme, that it is not only unavailing, but even deleterious. This reasoning, (if it be worthy that name,) is about as sound as that of those who say that Christianity has proved a failure because vice still prevails, and crime itself is triumphant. Statistics would fairly show that our prisons and penitentiaries are not filled with the men who truly practice the precepts of Christianity as laid down by the Master, and I think, upon a fair investigation, would equally show that those who contract and die of small-pox are not those who have been made by vaccination subjects of the *true vaccine* disease, however slight it may have been.

I have been fortunate enough to have had in the course of a long and pretty widely extended practice comparatively little to do with this loathsome and fatal disease. And I may remark comparatively few of my clientage have neglected to be vaccinated. I have, however, seen enough to enable me fully to make up my mind upon the subject upon which I now write.

I may then, perhaps, be allowed to detail a few cases in which I have had opportunity of making personal observation, and then, if time permit, adduce some facts upon which I have undoubtedly reliable information. Confined as we are within very moderate limits, I cannot go into minute detail.

In the autumn of 1862 I was called, after night, to see a man a few miles distant, who was represented to be very sick. I found him in a very high fever and with a combination of symptoms which at the time somewhat puzzled me. I prescribed and left him, expecting to see him the next day, and make out a more satisfactory diagnosis. It was at the time of the raid of the famous rebel general, Stuart, into this county, and as the exposure of horses upon the road was then very

unsafe, I perhaps did not see him till the morning of the following day. The fever had then subsided, pulse nearly normal, and he expressed himself as feeling in all respects better. I noticed, however, a singular eruption upon his face, and asked him what that might mean. He then told me, for the first, that he had some days before assisted in putting a corpse into the coffin—one who had died of small-pox at the place now known as Hunter's Run station, upon the South Mountain railroad. The subject was a girl who had probably worked at the Mt. Holly paper mills, about two miles distant from the place of her residence and death. Cases of small-pox not unfrequently occur at these mills, probably communicated through infected rags. From the cause above assigned I had not an opportunity of watching this case closely throughout its course, but it was one of no great severity and terminated favorably.

The person whose case I have briefly sketched had a large family. I had vaccinated several of his children, probably ten years before, and the remaining younger ones within a year or two prior to the father's sickness; the latter from a crust, third from bovine virus brought by a professor of the Jefferson Medical College from Germany. All the children had free access to their father's sick room. The first set took a very mild form of varioloid, the latter escaped unscathed. A girl living in the family, who had been vaccinated probably in childhood, took varioloid and went home to her father's house. So mild was her case that a physician who was called in, maintained that it was only chicken-pox. Her father, now considerably advanced in life, who had never been vaccinated, took confluent small-pox in its most terrible form, died and was followed to the grave by his wife alone.

During the war of the rebellion several deserters passed along a road not far from my residence. One of them was obliged to stop on account of indisposition, and obtained quarters in a cooper shop directly upon the road. The owner of the shop had a large family of children, some vaccinated and some not, who had free access to the sick man, daily carrying him food and drink. I was called to see this patient when the eruption was fully out, and had no doubt that the disease

was small-pox. I immediately vaccinated all the children, whether vaccinated before or not. All to some extent took, and all escaped even the mildest form of varioloid.

In February last I was called to see a man whom I found very sick with high fever, headache, sleepless for several nights past. He told me he had been making fence in a very wet place and had taken a very bad cold. He had a cough, but his explanation did not satisfy me. As there had been no small-pox in the vicinity for a long time, this disease did not occur to me. I intended to see him next morning, but as he lived at some distance and it rained incessantly throughout the day I was obliged to postpone my visit till the morning of the following day. When I took his hand to feel his pulse I noticed a very copious eruption upon his wrist. I asked him if the same extended to other parts of his person. He replied it did, that he was very subject to be affected by the poison vine, that much of it grew where he had been working and he had become badly poisoned. I told him whatever it might be it was not that. I then proceeded to inquire of him more particularly. I asked him if he had been vaccinated; he replied "half a dozen times, but it never took." I found he had been over to Mt. Holly to bring the daughter of a neighbor who had recently died to attend her father's funeral. This woman, probably an employee at the paper mills, boarded in a house where some cases of small-pox had recently occurred, and one had died. The patient's fever had now in a great measure subsided, and his pulse had become nearly normal, but he was still feeling very badly, and the eruption was so dense that a pin's head could scarcely have found space between the points without contact. I diagnosed an incipient case of confluent small-pox, probably of the most malignant form. As the disease progressed the face seemed like a single vesicle filled with serum, and wherever a pock became elevated it forthwith assumed nearly a black color; hæmorrhage from the mouth took place and blood was constantly hawked up, and also, I think, passed by the urine. I revaccinated the rest of the family and none took the disease. It was on Tuesday I first saw the patient; he died the next Sunday morning.

This was decidedly the worst case of small-pox I ever encountered, and perhaps as malignant as any that occurs. I handled the patient freely in my examinations of him, and I think without the least hesitancy or fear. The room in which he lay was too small and could not be ventilated as I desired. The emanations from his body were truly nauseating, so that the last time I was with him I felt sick when I left the room. Under circumstances, such as these, if susceptible at all, I ought to have taken small-pox. I have no protection but vaccination, repeated again and again till it would no longer take any effect. As the last repetition had been, perhaps, thirty years before this time, I thought, after my sensations above referred to, that I might possibly, without some precaution, take at least varioloid. I therefore next morning inserted bovine virus into my left arm. Although the last previous insertion had faded away without result, this was followed by a pock so perfect that had such appeared upon the arm of a child I had vaccinated I would, without hesitancy, have pronounced it good. This occurrence, I think, at least proves the return of susceptibility to the vaccine inpression after it had become extinct.

A very extensive and fatal epidemic of small-pox occurred during the past winter (1881, 1882) in South Bethlehem, Northampton county, Pa. This place, separated from the ancient town of Bethlehem by the Lehigh river, is the seat of extensive iron and zinc works and other industries calculated to bring together a vast number of the poor laboring classes, many of them foreigners, whose entire circumstances render them peculiarly liable to attacks of this dreaded disease. Many of the incidents of this epidemic furnish striking proof of the protective power of vaccination. South Bethlehem is the seat of the Lehigh University, containing at the time of the epidemic about one hundred and twenty students; seventy-five of these boarded in the town within the infected district. A physician, by request, visited the university to afford an opportunity to any not vaccinated to have the operation performed, or to any that might desire to have it repeated. It was found that all had been vaccinated; two of them, however, had vaccinated

themselves. Not one of these contracted any form of the disease, notwithstanding their exposure at the boarding-houses, and on their way to their recitation rooms, except the two who had been their own operators. These took a slight form of varioloid, so slight as not to oblige them to take their beds.

From all the testimony that has been collected it would appear that a very large proportion of those attacked had not been vaccinated at all. An old man, night watch at the university, who had never been vaccinated, and who resisted all entreaties of the President and of the physician, took the disease, and notwithstanding the most skillful care, died in a few days. This fact shows that those who were connected with the university did not, ipso facto, enjoy a charmed life or immunity from the disease.

It is surprising, notwithstanding the facilities enjoyed, how many may be found still unvaccinated, and consequently furnishing the pabulum for the continued existence of this terrible disease. Chief Burgess Goodwin, who was also President of the Board of Health of South Bethlehem, represented to Dr. Lamberton, President of the University, who stated the same by way of encouragement to the students, that out of 200 cases that came under his observation, not one had been vaccinated. Two young men, sons of the late Dr. Wm. H. Cooke, of Carlisle, and students of Lehigh University, were appointed by the borough authorities of Bethlehem to visit every family, ascertain the number in each vaccinated, and not vaccinated, and to report accordingly. The elder of the two, a member of the senior class, now present with me as I write, informs me that the result of their investigation was that out of a population somewhat above 4,600, 792 were not vaccinated; that is, about $17\frac{1}{46}$ per cent. A similar investigation in South Bethlehem would probably have shown a greater percentage still. I have been informed by what seemed to me to be good authority, that in the opinion of the physicians who served in this epidemic, not one in ten of those attacked had ever been vaccinated.

It must be admitted, however, that a certain proportion of those who have undergone some form of vaccination, have

subsequently contracted at least modified small-pox. This, however, is no valid objection against the prophylactic power of vaccination. The operation, as performed, is doubtless often defective. It is often done by unskillful or careless hands; often with matter destitute of the essential qualities of vaccine virus, and the result is sometimes erysipelas, or something worse, instead of genuine vaccine disease. Besides, it is probable that in some cases at least, a repetition may be necessary to secure perfect immunity. It is asserted that sometimes a second attack has occurred, generally in a modified form, even after real small-pox. From my own observation I am fully of the belief that vaccination should be repeated so long as it will take any effect. This has been done in my own case, as before intimated, and the two young men referred to above had each been several times revaccinated, and although constantly exposed to the contagious miasm in the discharge of their duty, performed it fearlessly and escaped unscathed. A single dose of a prophylactic may fail, while a persevering repetition may answer the desired end. It is, moreover, probable that in order to procure the best protective effects, we should again and again recur to matter resulting from the spontaneous disease in the cow. When artificially transferred from arm to arm, in the human subject, or even from teat to teat in the heifer, it may become deteriorated and lose its prophylactic power.

We, therefore, conclude from an impartial survey of the whole field, that vaccination duly performed, with a proper observance of all the conditions necessary to success, including the use of virus of the best attainable quality, is nearly, if not completely protective, against small-pox. So strong is my belief in its powers, that if I recognized an attack of that disease in its pre-eruptive stage, occurring in the midst of a malignant epidemic, I would even then inject subcutaneously a suitable dilution of genuine vaccine virus, and confidently expect a beneficial result.

I can only very briefly glance at the objections raised on the ground of occasional accidents following vaccination. The immediate are probably the result of spurious matter, or a

poisoned lancet. Both these causes may, with care, be avoided, and consequently the effects escaped. Latent diseases seeming to be developed by vaccination, would probably be developed sooner or later by other causes. There are constitutions wherein the processes of healthy life are carried on so feebly, or are so illy balanced, that the smallest amount of morbific matter, introduced from without, disturbs the equilibrium, and the result is disease. Such consequences, if anticipated, could perhaps often be prevented by the judicious use of homœopathic remedies.

DIPHTHERIA.

THIRTY-EIGHT SUCCESSIVE CASES IN A RECENT EPIDEMIC.

BY E. C. PARSONS, M.D., MEADVILLE.

During the autumn of 1881, there developed, in the city of Meadville, an epidemic of diphtheria, which did not entirely cease for a period of four or five months. The number attacked at any one time was not excessively large, as the epidemic was confined almost exclusively to the northern and eastern portions of the city. This area embraced the most elevated portion known as the first and second wards. In fact there were but very few cases in the valley adjoining the river where many of the cellars were damp and the drainage very imperfect. This fact may have been largely attributable to one or both of two causes; the first of which may have been the direction of air currents; the prevailing winds in this locality being, usually, from the southwest. The second cause may have been that the school building, for the accommodation of this portion of the city, was very much crowded and very poorly ventilated; some of the rooms containing nearly or quite two hundred pupils, with no means of ventilation other than that obtained by raising and lowering windows. In this way currents of air were produced, also sudden changes of temperature, resulting in shocks to the nervous system, followed by congestions, interrupted glandular action and catarrhal inflammations in the respiratory tract which furnished the "hot

bed " for the reception and rapid development of the diphtheritic disease germs.

There is certainly a very great necessity for a more intelligent supervision of the construction of our public school buildings. The heating, lighting and ventilation of these buildings are all too important to be left wholly to the whims of incompetent building committees, or to the varying notions of unskillful mechanics.

This, however, is a digression; but pardonable, perhaps, when we consider the importance of the subject, and the relation it bears to the health of our children.

During four months of the time in which this epidemic prevailed, my visiting list was not entirely free from the names of diphtheritic patients. I treated thirty-eight cases and was consulting physician in twelve additional cases. Of the thirty-eight cases in which I was the attending physician, three proved fatal. Two of the fatal cases were of the croupal form; and in the third case, there was excessive albuminuria and all the evidences of blood-poisoning.

A fatality of a little less than eight per cent. may seem scarcely worthy of mention, but in view of the malignant character of the epidemic, the difficulty experienced in obtaining competent nurses, and the extreme fatality under old school treatment, this rate of mortality may be considered very small.

A fatality of from 25 to 50 per cent. of the cases treated, was the experience of several allopathic physicians during this particular epidemic. To institute a comparison of results obtained by different methods in two epidemics which may have differed widely in character and malignancy is hardly just; but such a comparison of results in the same epidemic, where all are subjected to like influences, should not be regarded as invidious. The unpardonable use of escharotics, the free and indiscriminate use of quinine and spirits fermenti in the treatment of this disease as practiced by the orthodox school, are productive of evil consequences too well known to all. If the cases thus treated are not malignant in the beginning, they are quite certain to assume such a form, and are followed by

a slow and tedious recovery, possibly by the now very common sequel — "malarial fever" — if death does not end the scene before so happy a result is reached.

Just previous to the development of the disease in the county seat, there had been an epidemic in one of the villages of the county, where no homœopathic treatment was available, and of forty cases attacked twenty-three proved fatal — a mortality of 57½ per cent.

A chemical analysis of the urine was made in many of the cases treated by myself, with the result of finding it to be usually of a low specific gravity, with occasionally more or less albumen present. When the latter condition existed and recovery took place, the convalescence was much more protracted.

The larynx was slightly involved in several instances, in which good recoveries were made; but where the case was extremely malignant, with any considerable implication of the larynx, a fatal result was the rule. Where an invasion of the larynx was imminent, and before any hoarseness was noticeable, the patient, if old enough, would almost invariably complain of a smarting or burning sensation in the region of the larynx. This was regarded as ominous, for an extension of the exudation was taking place and asphyxia was liable to be the result. Nasal complications, too, were unfavorable, and frequently fruitful of serious results, because of the greater tendency to blood-poisoning. The utmost care and attention to cleanliness seemed futile, in some cases, to prevent the absorption of impurities from the posterior nares, the effect of which would soon be manifested by the development of the usual and well-known symptoms of pyæmia, attended with the highly characteristic metastatic abscess. Temporary paralysis followed as a sequel in three cases, all of which finally made a perfect recovery.

The experience during the continuance of this epidemic was corroborative of the view that diphtheria is an epidemic and an infectious disease, but not contagious. There were several families who kept their children at home and away from any direct exposure, but notwithstanding this precaution they be-

came afflicted with the same malignant type of the disease. Others were in almost constant attendance at the bedside of the sick for weeks, and experienced no ill results from the exposure.

There must be a pre-existing condition of the system — a proper soil — suited to the reception and development of the specific disease germs. If these conditions do not exist, there will be no development of diphtheria, whatever may be the exposure. Unfortunately, we have not yet learned what these conditions are, otherwise we might forestall its development and bring joy and gladness to many a household by averting so terrible a catastrophe as is sure to follow in the wake of this disease monster.

I wish to cite two cases, which came under my observation, in proof of the infectious character of this disease:

Mrs. D., visited her brother's family, in a remote part of the city, in which diphtheria was prevailing. In about ten days subsequent to this visit her youngest child contracted the disease and fell a victim to the croupal form. The father, mother, and an older child were constantly in the sick room, but none of them contracted the disease. This was the first and only case in this part of the city.

Dr. M., treated three very malignant cases four miles from his residence, remaining with his patients the greater part of the time for two weeks. Ten or twelve days after the doctor returned home the older of his two children was attacked with a very malignant type of the disease and died in a very few days. Soon after, the younger child became affected by the poison and death resulted from an invasion of the larynx. These children had not been from home, and no other cases occurred nearer than four miles distant. Is it not reasonable to conclude that the disease germs were, in some way, carried to these children and developed because the necessary conditions were present?

These are but parallel cases to many others that could be cited in proof of the infectious character of the disease and in disproof of the theory that it is contagious.

In the treatment of the thirty-eight cases the following

fourteen remedies were used: aconite[3], apis[3], arsenicum[6], baptisia[2], belladonna[3], bryonia[3], kali bichromicum[3], lachesis[30], lachnanthes[6], lycopodium[30], mercurius jodatus[3], nux vomica[30], rhus tox.[6], and sulphur[30].

Aconite was used in but few cases. They were such as entertained great fear of the disease and of its results. Early in the disease. Dryness of the mouth with burning unquenchable thirst. Dark redness of the throat, the left side of which was first affected. The surface of the body dry and burning. The pulse hard, full and frequent.

Apis was very frequently called for by the following symptoms: Great prostration; stinging, burning, dryness of the throat, which at first was very red and shining as though it had been varnished, afterward becoming coated with a yellow diphtheritic membrane, attended by an accumulation of tough, frothy saliva in the mouth and throat. When the urine was scanty, of a low specific gravity and contained albumen. No thirst. Dullness of the mental faculties. Shortness of breath. Aggravation if the room became warm.

Arsenicum alb. was given if the throat presented a reddish-blue appearance, especially if there was bloody saliva and an excoriating discharge from the nose. A constricted feeling of the chest. Anguish both of body and mind. Restless. Loathing of food, with burning in the stomach and unquenchable thirst for small quantities of water. Albuminuria. The symptoms relieved by heat.

Baptisia was indicated in a few of the most desperate cases, two of which finally proved fatal. In the remaining cases, where it was used, good results were obtained. Some of the symptoms indicating the remedy were as follows: Dark or black appearance of the throat, which was painless. Breath fœtid. Great weakness and dyspnœa. Well marked asthenic type of fever, with tendency to stupor.

Belladonna was given to a few cases which seemed to require it by the following symptoms: Very sudden attack. The throat dry and bright red where not covered with a light colored membrane. Right tonsil swollen. Difficulty in swallowing fluids. Red face, suffused eyes and drowsiness, with inability to sleep.

Bryonia was occasionally indicated early in the course of the disease, or during the period of convalescence. The symptoms, which were usually promptly relieved by it, were the following: Irritability. Refusing things asked for. Thirst for large draughts of water at long intervals. Nose bleed. Indisposition to move. Getting faint or sick on sitting up.

Kali bichromicum often followed bryonia and occasionally other remedies, if the case assumed the croupal form, with a tough and ropy mucous expectoration.

Lachesis was given when the disease commenced on the left side, accompanied by external tenderness, and aggravation after sleeping. Throat swollen and the discharges fœtid.

Lycopodium was selected when the disease began upon the right side. Oppression of breathing, worse on lying down and from warm applications.

Lachnanthes was used in two cases where a painful stiffness of the neck remained. It was curative in both instances.

Mercurius proto. iodatus was the only mercurial preparation used in these cases, and this was seldom given early in the course of the disease. I am convinced that when the various forms of mercury are given early in this disease, there is great danger of increasing the tendency to glandular enlargement, and of producing a general aggravation. If unmistakably indicated, early, the very low potencies should be avoided. The symptoms which prompted the use of this remedy were such as the following: Tongue deeply coated, usually of a yellowish-brown color. The gums looked spongy. Hypertrophy of all the glands of the mouth and throat, with a profuse flow of saliva. Exhausting sweats with no relief.

Nux vomica was used in but two cases, I believe, and in these during the period of convalescence. The symptoms which suggested the remedy were: Partial paralysis of the lower extremities. Obscuration of sight. Swelling of the uvula, and constriction of the pharynx.

Rhus tox. was used where there was great restlessness at night, with aggravation of all the symptoms after midnight. Typhoid condition. Tongue dry, red and cracked. Bloody saliva escaping during sleep.

Sulphur was found useful when the patient was of a scrofulous or of a psoric diathesis; especially if the following symptoms were present: Yellow deposit upon the posterior wall of the pharynx with a sense of a lump in the throat. Flashes of heat. Sinking spells.

The principle gargle used was very dilute alcohol, usually about one part to eight of water. Any irritation of the throat was carefully avoided. Warm water with a very little carbolic acid was used to cleanse the nasal cavities when required. Inhalations of steam were used in a few cases, as, also, were warm fomentations applied to the neck. The diet in every case was principally fluid in character, but as nutritious as possible. If albumen was present in the urine, the patient was kept upon a milk diet almost exclusively. Stimulants were not given, except in one or two instances, and then to no purpose. Careful attention was given to disinfection and ventilation, and to the proper cleansing of every thing used about the patient. Unnecessary talking, and all excitement were prohibited as far as possible.

A CASE OF MEMBRANOUS CROUP: BROMIUM.

BY W. J. MARTIN, M.D., PITTSBURGH.

Katie D., æt. 6 years, was brought to my office on the 19th of May last. She had been coughing quite croupy for the past day or two, but not until to-day did she complain of soreness of the throat. On examination I found the tonsils inflamed, moderately swollen and lightly covered by a pearly looking membrane; the tongue was heavily coated yellowish-white, breath not particularly offensive; respiration was obstructed and the voice hoarse. These symptoms all point to the conclusion that the membrane had first formed in the larynx and extended upward to the throat. Prostration, at this time, was not marked, but the prognosis was, as in all such cases, exceedingly doubtful. My first prescription was kali bi.^{6}, but no improvement following after twenty-four hours, it was changed for merc. cy^{6}, a dose every two hours, together with frequent

inhalations of the fumes from slaking lime. For the first twenty-four hours she seemed to improve slightly on this mixed treatment, and it was continued; but the next day she was decidedly worse; the merc. cy. was continued and hot vinegar fumes substituted for the lime. At four o'clock the next morning I was called to see if I could do anything more for the child, as it seemed impossible for it to hold out much longer. When I reached the house and saw the condition of the little patient I felt certain that she would soon die if something did not speedily produce a change. It was almost impossible for the child to breathe, every muscle that could aid in respiration being called into requisition. Expiration was as difficult as inspiration, pulse so rapid and feeble that I could not count it; sleep was, of course, impossible, pain in the abdomen, which was no doubt due to the violent action of the abdominal muscles in the effort to draw air into the lungs and force it out again. The tongue was still heavily coated, the tonsils had cleaned off. As the inhaling of the hot vapors had produced no other effect than that of exhausting the patient, the membrane in the larynx seeming to steadily grow more firm and dense, it was discontinued. Believing that the case presented the following symptom, found only under bromium, viz.: "The disease commences in the larynx and travels upwards, with hoarse and croupy cough," this remedy in the third centesimal potency was given, 10 gtt. in a glass one-half full of water, one teaspoonful every half hour. I returned in six hours and found that the breathing was just a little freer. The prescription was continued and that evening the cough had a slightly loose sound, and during the night the patient slept some.

The remedy was continued from the 24th to the 28th of May, the improvement being steady and uninterrupted. The first two days a dose was given every half hour, on the third day every hour, on the fourth day every two hours, and after that for several days every four or five hours.

The case teaches several things: first and foremost, that the right remedy can and will cure membranous croup by simply administering it internally in the potentized form and

without the aid of steam, lime, vinegar, etc., etc. I have had cases of membranous croup and of croupous diphtheria pull through and finally get well, by the aid of vapor, stimulants, etc., where I have the strongest kind of suspicions that the remedy administered had nothing to do with the recovery.

It also teaches that it is not necessary to use bromine in its crude form in order to obtain its curative effects; and that it does not lose its curative powers (when potentized) by age; the preparation which I used in this case was at least eight years old, and probably much older.

With my present views, based upon personal observation and experience, I would neither recommend nor perform tracheotomy for the cure of croup. I do not know of a single instance where the operation has not been followed by the death of the patient. I do know of a few cases of recovery where the operation was not performed. The plea that I once heard one of our physicians advance in defense of the operation, viz: that the patient dies easier after it, is, to my mind, simply puerile. The operation is strongly urged in Ziemssen's Encyclopædia, vol. iv., article 'Croup,' and the writer of the article, Prof. Steiner, who was Extraordinary Professor of Childrens' Diseases in the Francis Joseph Hospital of Prague, says that out of quite a large number of cases occurring in his practice before he had adopted the operation of tracheotomy, he saw but three recoveries; but that this discouraging rate has been so much improved by the employment of tracheotomy that the mortality at different times amounted only to sixty, sixty-five and seventy per cent. Prof. Steiner also says, "If certain physicians, generally homœopathists or hydropathists, boast of brilliant cures, while practitioners of known ability and honesty confess to the most dreadful losses, the explanation lies simply in the fact that none but swindlers or ignoramuses indulge in such vaunts," that "Croup is, under all circumstances, a deadly disease, and the prognosis is in general extremely doubtful."

As a rejoinder to this, I cannot refrain from quoting the following from our own Prof. Raue, which is much better and more forcibly put than I could do it, and can be found in the

late edition of his Pathology and Therapeutic Hints, article 'Croup': "The prognosis of true croup is a great deal more favorable under homœopathic treatment than under allopathic. While practitioners of the old school of known ability and honesty confess to the most dreadful losses, we of the Hahnemannian school have a *right* to boast of brilliant cures, if boasting it be, when physicians of known ability and honesty state their successes. How a man like Johann Steiner can call these men swindlers and ignoramuses, men who at least in the therapeutic science stand far above him, is explainable only when we understand the beclouding influence of bigotry over sound judgment."

INTERMITTENT FEVER: CLINICAL CASE.

BY JOHN C. MORGAN, M.D., PHILADELPHIA.

G. A., aged 40 years, had feverishness with severe paroxysms of post-mastoid neuralgia, right side, recurring every few moments. The pain shot upward, then forward. Gels.[3] ameliorated at first, but after overdoing he got worse, and it failed. He now had also distinct daily paroxysms, and, finally, a hard chill at 11 A. M., followed by hot fever and aggravated pain; and besides severe jaded aching in sacrum and hips, as if from a long march. I gave chininum sulp.[200], in water, a dose every three hours. There was no more fever, and the sacral pains were much ameliorated. The post-mastoid tenderness, neuralgic tearing every time he spoke, fever and pain, became much better after merc. viv.[200] every three hours. The relics of both promptly disappeared after taking silicea[200] four times a day.

CONSTIPATION.

BY H. NOAH MARTIN, M.D., PHILADELPHIA.

This subject I shall discuss under two heads, viz.: Constipation arising from diseased conditions, or rather as a symptom of disease; and constipation, a constitutional habit of the body.

Constipation, sometimes called costiveness, occurs in many forms of disease. We find it to occur in diphtheria from paralysis of the abdominal muscles; in scarlet fever; in dengue, or dandy fever, in its first stage; in measles where it is often followed by diarrhœa in the later stages of the disease; in parotitis or mumps; in typhus and in typhoid fevers in which it is called a favorable symptom; in the second stage of yellow fever; in cerebro-spinal meningitis; sometimes in purpura hæmorrhagica; in the early stages of scurvy; in acute and chronic gout; in acute and sub-acute rheumatism, and in acute meningitis.

Since constipation is a factor in the symptoms of so many diseases, it becomes an object of treatment and should occupy a place, although a subordinate one, in the diagnosis of a remedy. Our old school friends have generally laid great stress upon it because it has the effect of elevating the temperature of febrile patients; hence they give purgatives, either active or mild, as the case may be, in order to procure a free movement of the bowels each day. This they consider important. Thus, while the symptom of constipation ranks with them first in importance, it sinks to a very low rank with homœopathists. Constipation, the result of organic or structural change, is of far greater moment, and now becomes a symptom of great significance, as it also does in some functional disorders, such as atonic dyspepsia, of which a few words here.

The food being improperly or imperfectly digested collects in the intestines in masses, generating gases which fill the intestines above and below, and by the distention thus produced the intestines are disabled from keeping up that proper peristaltic action by which the fœcal substance is propelled forward; an action which in health serves to strengthen the intestinal muscles, which now, from long disuse, become atonic, and thus add to the difficulty already present. A long train of symptoms follow this disorder, of which the character and appearance of the constipated stools are among the most important, especially to the homœopathist.

Among the organic diseases we find the following which have constipation in some of their stages, as of importance either for purposes of diagnosis or prognosis:

In the early stages of cancer of the liver. In chronic gastric catarrh where the stools appear in large scybalous masses, often covered with tenacious mucus. In chronic congestion of the spleen. In diabetes mellitus. In jaundice, being whitish or of a clay color. In chronic ulcer of the stomach, in which it is a very constant symptom. In chronic pelvic cellulitis, as well as in its acute form, it is so obstinate as to have been supposed by some to be the cause of the disease in many cases. It is said to be caused also by uterine ante- and retroflexions, and it is a frequent symptom alternating with a bad form of diarrhœa in progressive locomotor ataxia.

In all of these last mentioned diseases the condition of the bowels and the character and appearances of the stools furnish, to homœopathists especially, valuable characteristic indications for medicines.

Just here I will mention another class of conditions which are sometimes included in the term constipation, but which may be more properly termed obstructions. They are congenital stricture; contractions caused by adhesions, growths or deposits; internal strangulation; impaction of foreign bodies, such as coins, marbles, cherry stones; intussusception, etc.

As I have already intimated, the color, size, consistence and odor of the constipated stool in disease gives the homœopathist, frequently, the key-note to the curative medicine. It is one which, if we take careful note of, may give us most gratifying and unexpected results in the cure of our patients.

Among the great number of our medicines I quote a few which have served me well, and I hope the members of this Society will be able to corroborate my experience.

Silicea[30] is indicated, when the patient has constipation before and during the catamenia; if, also, at the same time there is violent pain in the head, passing directly through the head from the nape of the neck to the frontal sinus; stools recede when nearly out. If purple spots or blood boils appear at the same time, the indication for silicea is more evident.

Conium mac.[30] In cases of abdominal or rectal cancer, when there is a sore, bruised feeling in the abdomen and sharp cutting pains; great weakness and trembling after stool, accom-

panied by vertigo when turning around, or turning over in bed, and a dry, hard gastric cough in the night time.

Hydrastis can. tincture, or 1st dec., ten drops in four tablespoonfuls of water, a dessert spoonful every two hours, has frequently cured very obstinate cases when catarrhal indigestion is coincident.

Oleander[200] is a superb medicine when stools are dry, sluggish and contain indigested food; especially when there is decided itching of the skin while undressing, either with or without eruption. Try it! It has cured a good many cases for me.

Magnesia mur.[30] I think I have had as good results with this medicine, for all ordinary cases of constipation, as with any other I know of. If there are no characteristic symptoms for any other medicine, or if nux vomica fails me when seemingly indicated, magn. mur. helps me out.

Nux vomica in all doses, from one-fourth of a grain of the extract up to the 200th has at times been very useful. The patient is gloomy and irritable; has vertigo, coated tongue; liver and stomach are undoubtedly deranged; his every appearance indicates it. The stools come in large, hard, broken masses, scybalous and covered with a dried mucus, or blood and mucus. Hæmorrhoids are a frequent accompaniment.

Opium is not to be forgotten when the stools resemble "sheep's dung."

Calcarea carb. If a child sweats very much about the occiput when sleeping; has a bloated abdomen, restless sleep, with horrible dreams, evidenced by awaking from sleep with a shriek, gazing at the wall and pushing away with its hands some imaginary frightful object; stools dry, light colored, indigested and smell of spoiled buttermilk, and if, at the same time the child is teething, you need not hesitate to give calcarea carb.[6x to 30.]

Amorphous phos.[3d x to 3] has relieved many cases of constipation, the stools being small, hard and expelled with great difficulty. Frequently in such cases the kidneys are active, and considerable moisture is also lost by profuse expectoration from a chronic cough; the perspiration is incident to debility.

The above comprises most of the medicines which in my hands have proved so valuable as to be worthy of particular note.

Among other medicines which have proved occasionally useful are *Alumina*[200], when there is inability to urge the fœcal matter out.

Bryonia more particularly with children if the stool is very large, hard and dry, as if burnt.

Graphites, in some scrofulous patients.

Ignatia, when connected with despondency and sighing, and a gone, empty feeling in the pit of the stomach. Prolapsus.

Plumbum, in paralytic patients.

Sulphur, for the well-known conditions of this class of patients.

Collinsonia can. once cured a very obstinate case for me. The stools were very sluggish and hard, accompanied by pain and flatulence.

Of course it is conceded that any remedy may cure constipation, if the concomitant symptoms of that medicine are present. To illustrate: If I were called to prescribe for a case of chronic intermittent fever, where the attack was announced by chilliness along the right thigh and a dry hacking cough, with habitual constipation, I would expect to cure the case, constipation included, with *rhus tox.*

For habitual constipation in healthy people, I have found a very simple remedy quite efficacious in cases where the bowels do not move in two or three days, viz.: A pinch of common table salt dissolved in a goblet of water at night at bedtime, and on rising in the morning. This seldom fails; but it should not be resorted to too often. Also a kind of hip gymnastics, such as gyratory motion of the hips together with kneading the abdomen, commencing at the right iliac region and gradually passing in the direction of the colon to the left iliac region.

I now pass to the second division of this subject, viz.: Constipation, a constitutional habit of the body.

Our allopathic brethren have laid such stress upon the necessity of a daily movement of the bowels to secure continued

health, that it becomes a subject of annoyance both to our patients and ourselves. Some people who are perfectly healthy continually worry about the state of their bowels and feel that they must be made to move every day; and they imagine, if they do not do so, that they do not feel well, that their head aches, etc. If they have confidence in their medical adviser they can get a vast deal of comfort if he asserts, what I believe to be the exact truth, that a constipated habit is a sign of good health and offers a prospect for a long life.

During the past few years I have questioned every old person, when opportunity offered, that I could approach on the subject, and I have found it universally true that they have had dry, constipated stools habitually. In very many cases a stool once in three days has been the rule.

Dr. Hering once said to me that if his bowels moved oftener than once in three days he knew he was not well.

It is undoubtedly true that most persons in robust health have an alvine evacuation once daily; but it should be a consistent stool and by no means a watery or soft one.

It is stated by good authorities that a degree of good health has been maintained for many years when fœcal evacuations occurred only once in six weeks or two months.

*Dr. Robert Williams records a case of a lady who took large quantities of opium, and who was habitually constipated, whose bowels only moved at intervals of three months during a whole year.

While I contend that a dry stool is an evidence of a long lived constitution, and portends old age if no accident or acute illness takes the patient off, I do not ignore the fact that when it becomes unnaturally persistent, it may portend a chronic ailment of which I have spoken in the first part of this paper. In such cases it may arise from many causes before mentioned, and many evil consequences result. An obstruction in the bowels with a large collection of fœcal substance and great distention of the abdomen, etc., does not

*Dr. Burne on Habitual Constipation, quoted by Mr. Pollock in Holmes's System of Surgery, vol. iv.

come within the limits of habitual constipation, which I consider a sign of health.

I throw out these hints for your consideration, and believe that those of you who have investigated the subject will give it your approval, and to those who have not, reserve your judgment until you have.

As a postscript to this article, I would invite a discussion as to how long it is safe to permit a sick person, confined to the bed, to go without a fœcal evacuation. My own experience is that after confinement, nine or ten days is entirely within the limits of good health, and perhaps indicates that the uterus has resumed its proper place and size, and that the patient is restored so that she may be up on her feet. I have often queried whether, when a natural stool occurs on the third or fourth day, it is not nature's indication that the patient may be out of bed, providing she is otherwise healthy.

I once, during a malarial fever contracted in the Chickahominy swamps while serving in the army, had my bowels confined for twenty-nine days; and I have, in at least two cases of pelvic cellulitis, had patients make excellent recoveries after a period of thirty and thirty-five days had elapsed without stool.

A discussion of this subject, published in our State proceedings, I feel sure would be of vast benefit to the younger men who have had but little experience on the subject.

ACONITE IN BACKACHE.

BY W. J. MARTIN, M.D., PITTSBURGH.

My first experience with aconite in backache was in December, 1874, and I was the patient. I had contracted a severe cold and was feeling generally miserable, but my greatest misery was caused by pain across the small of the back, and this pain in the back was peculiar in this, that *it prevented me from taking a deep inspiration.* I took several remedies, such as bry. and rhus, without any benefit whatever. Vol. 1 of Allen's Encyclopædia had but recently been received, and under

aconite I observed the following: "Pressive pain in the small of the back." "Momentary sticking and drawing in the small of the back." My case presented these symptoms, and, not being able to find, under any remedy I examined, the peculiar aggravation of the pain by a deep inspiration, I concluded to try aconite. I had been suffering some two or three days when I commenced taking the aconite[2]. By the time I had taken four doses—the doses being two hours apart—the soreness had left my back, and I could take a deep inspiration without pain. Since that time, whenever I am called upon to prescribe for a patient having a backache which prevents, or is made decidedly worse by a deep inspiration, no difference whether the deep inspiration be voluntary or that which precedes a cough, or a sneeze, or accompanies a yawn, I have given aconite[2], which has invariably given prompt relief. I have given it in cases of long standing, as well as in acute cases, with equally satisfactory results.

The following two cases are illustrative: Mr. H., a tall, spare man, about forty-five years old, by occupation a glass cutter, has had backache for seven years. He cannot attribute it to any special cause; says his doctors have told him it was lumbago. He has been under the treatment of both homœopathic and allopathic physicians. The pain in the back is constant, worse whilst working, causing him to lose considerable time. Changes in the weather do not affect him, but *drawing a deep breath always gives him a sharp pain right in the small of the back*, and at times, when his back is very painful, it is impossible for him to take a deep breath. He took acon.[2] a dose every three hours, and in three or four weeks was entirely free from pain, and has had no return of it since.

John M., aet. about 30 years, a strong, muscular young man, by occupation a grocer. Last winter he caught cold, which seemed to settle in his back. He had been suffering some four or five days when he came to me, unable to attend to his store; he could not lift anything from the ground, neither could he lift anything to or from a shelf above his head; he could not stand, sit or lie without pain, and *to take a deep inspiration was impossible.* He had used a number of local ap-

plications without any relief. I gave him acon.[2] a dose every two hours, and in two days he reported himself perfectly well.

This is a peculiar symptom, not present in every case of lumbago, nor even in most cases. Some that are very bad will not be the least aggravated by a deep breath. Neither is it equivalent to the bryonia modality, "better when perfectly quiet," for in the case of Mr. H., although he was worse from hard work, he was not relieved by lying quietly in bed. Neither was Mr. M. better by motion, though he could not keep still, therefore not rhus.

Suffice it to say, that aconite has never failed in my hands to quickly and permanently relieve a pain in the back, preventing a deep inspiration. I have always used the second or third potency.

CHOREA.

BY THE PHILADELPHIA COUNTY SOCIETY.*

Etiology.—In considering the etiology of chorea, it will be well constantly to keep in mind the great difficulty of satisfactorily demonstrating the relation of causation, and the liability to mistake for it simple coincidence or sequence. Without, therefore, committing ourselves to any theory in regard to the true causation of chorea, we will content ourselves, and best carry out the purpose of this paper by mentioning all those conditions and circumstances which, preceding an attack of chorea, or coincident with its outbreak have been regarded either as its predisposing or exciting causes.

Predisposing Causes.—*Age.*—Chorea is a disease that belongs to early life, occurring with the greatest frequency between the ages of 5 and 15. Among 646 cases recorded by five observers (See, Steiner, Pye-Smith, Peacock and Putzel), 537 occurred between these years, 22 under 5 years, and 87 above 15.

Of congenital chorea eight cases have been put on record. In four of these, special exciting or distressing influences are mentioned as having affected the mothers during pregnancy.

*This paper was prepared by a committee consisting of Drs. W. H. Bigler, C. R. Norton, W. B. Trites, B. F. Betts, J. C. Guernsey.

In adult life chorea is uncommon, and in old age exceedingly rare. Graves mentions a case 70 years old, Wright one of nine years' standing in a patient of 78 years, and Roger one in a lady of 83. When it occurs after the age of 50 it is usually attended with some mental derangement, especially dementia. (Putzel.)

Sex.—All authors and statistics agree that the female sex is especially predisposed to chorea. In tables which include 1,435 cases, recorded by seven observers (See, Rufz, Hughes, Steiner, Pye-Smith, Peacock, and Putzel), the proportion of females to males is nearly three to one (exactly 1,053 to 382).

Race.—While acknowledging the inconclusiveness of the data on hand, Dr. Weir Mitchell is led to believe from such statistics as he has been able to gather from Southern physicians that chorea is more rare in the black race than in the white. Indeed, many physicians residing in the Southern States and in Cuba had never seen a case in a pure black, although among the white population in their localities the disease was not infrequent.

Climate and Season.—According to the same observer, chorea seems to be as common in warm climates as elsewhere. See's statement that the cold and moisture of the autumn months furnish the greatest number of cases both of recurrence of chorea and also of initial attacks, has not been confirmed by the results of Dr. Mitchell's observations. He met with it most freqently in the spring and early summer. This difference may be owing to differences in climate and temperature between France and this country, but no doubt other factors also come into play. Thus, as Dr. Mitchell himself remarks, the mental pressure on the children in their school work during the spring months when the most important examinations and promotions take place, has its share in the rise of the chorea line in his tables during the early summer.

From carefully conducted meteorological comparisons he has also traced an apparent connection between cloudy days or stormy weather, and the frequency of attacks. In the warmer States of our Union the onset of this disease seems to be more common in winter than with us.

Condition of Life.— Among the predisposing causes of the disease under consideration, may also be counted all the influences that surround those that dwell in cities. It is essentially a disease of cities, being rarely found in the country or in sparsely settled districts. The mode of life, and the kind of education and training that prevail in cities, influenced, as they are, by the tension and high pressure that characterize the present stage of our civilization, naturally tend to increase the impressionability of the nervous system and predispose it to disease.

Heredity.— Putzel says: "Heredity exercises but little influence upon the development of chorea, and among upward of 90 cases which have come under my observation, I have not been able to obtain a single instance of the transmissibility of the predisposition to the affection from parent to child. Not unfrequently, however, it is found that one of the parents, usually the mother, suffers from nervousness or hysteria, and, in a considerable number of instances, I have observed that one or more of the brothers or sisters of a choreic patient were subject to epilepsy or hysteria."

Thus, although the neurotic tendency in the parent may not have culminated in an outbreak of chorea, it can be transmitted to the offspring as an hereditary predisposition to some form of disturbed nerve action, to be fully developed under the influence of some exciting cause. Science has not yet been able to tell us why this disturbance should develop in the form of chorea in the one child, of epilepsy perhaps in another, and of hysteria in a third. We must be content to fall back on the idea of *individuality*, which underlies not only the external manifestation of disease, but even what is loosely called *constitution*.

Impaired Nutrition and Lowered Standard of Health.—These are themselves dependent upon some antecedent disease, and this latter can, therefore, be regarded as indirectly the predisposing cause of chorea. Thus we have cases ascribed to preceding pneumonia, eruptive, typhoid and intermittent fevers, affections of the gastro-intestinal canal, anæmia, sexual derangements or excesses, and lately even vaccina-

tion. We would be inclined to reckon here also syphilis and scarlet fever, although the pathology of the future may be able to point to a more direct connection than that through impaired nutrition.

Exciting Causes.—*Mental and Emotional Disturbances.*—Among these fright occupies the chief place. It is distinctly stated to have been the exciting cause in 31 out of 56 cases collected by Duposse and Bird, in 34 out of 100 by Hughes, 25 out of 128 by Lee, 25 out of 84 by Peacock, 9 out of 38 by Hillier, and 7 out of 30 by Gerhard. Other causes of excitement or mental disturbance, as a violent fit of anger, will sometimes act in the same manner as fright. Where the outbreak of choreic symptoms is delayed for one or two weeks after the occurrence of any profound mental emotion, there are some who hesitate to consider this latter as the exciting cause. With this we cannot agree, but would suggest that our knowledge of the mode of action of such a disturbance of the nervous equilibrium is too scanty for us theoretically to limit closely the time in which it may be allowed to manifest itself.

Among other causes of a mental nature may be mentioned *imitation.* Hillier says: "The disease is never induced by the assemblage of several choreic patients in a ward of children, nor does it appear that the symptoms are in any way aggravated by mutual association." Bricheteau, however, reports an epidemic of chorea developed by the admission of a choreic patient to his ward in the Hopital Necker. Within a week eight other patients (females) became affected with the disease. Its further spread was only checked by isolating the choreic patients.

The *intestinal irritation* arising from the presence of worms has also been regarded as an exciting cause of chorea.

We find it also resulting from *pregnancy.* It generally occurs in the first pregnancy and in its first half. Whether it arises from the reflex irritation due to the presence of the fœtus in the womb, or from the altered condition of the blood usual in this condition, is doubtful. As it generally ceases after delivery, the former view seems to be the more correct, although, as Dr. Bastian has pointed out, there is a hyperplastic state of

the blood which may favor embolism from the direct deposit of white corpuscles in the minute vessels, if not by the floating into these vessels of minute vegetations detached from the cardiac valves.

Undoubtedly of most interest is the connection between rheumatism and chorea, not only on account of the difference of opinion as to its importance and the difference in the statistics brought forward in support of the various views, but also on account of its relation to the pathology of the disease. Dr. O. Sturges denies the asserted intimacy of connection between chorea and rheumatism, and maintains that in its simple uncomplicated form chorea is not due to any lesion which is demonstrable anatomically; that it is purely a functional disturbance. He admits the existence of a severe form of choreic spasms (originally described by Addison) at first resembling chorea proper, but accompanied with delirium and fever, and often rapidly fatal, which has its direct origin in acute rheumatism. The connection is by way of embolism. Examples of this disease are extremely rare, and occur rather in young persons than in little children. He believes that endocarditis in no period of life is an essential factor in chorea; that, when it occurs, it is its consequence, not its cause; that heart disturbance is often absent from first to last, and that the frequency of endocarditis in fatal cases does not represent its frequency upon the whole. He found of 121 cases at the Highgate Branch of the Children's Hospital, 97 free from any history of rheumatic manifestations.

Steiner also found that among 252 cases under his observation, a history of previous rheumatism could be obtained in only four. Rilliet has also drawn attention to the fact that chorea rarely appears in certain localities, *e.g.*, Geneva, where articular rheumatism is of frequent occurrence.

On the other hand Dr. Mackenzie found, in 172 cases in the London Hospital, some cardiac abnormality in more than one-half of the cases; that in more than 80 per cent. the heart lesion persisted, and that there had been pre-existent rheumatism in nearly 50 per cent. See states that one-half the entire number of cases of chorea are caused by the rheumatic poison.

Roger believes that the coincidence of rheumatism and chorea is as much evidence of a pathological law as the so frequent co-existence of rheumatism and endocarditis. Among 104 cases reported by Hughes and Brown (Guy's Hospital), only 15 were found where rheumatism had not been present, or in which a cardiac murmur was not audible.

Drs. Barlow and Warner have lately described certain subcutaneous nodules, varying in size from that of a mustard seed to that of a bitter almond, found in a number of choreic patients. They are attached to the tendons or deep fascia, especially near the joints. They are probably in their nature homologous with the inflammatory exudations which form the basis of vegetations on a cardiac valve. In their minute structure, they consist of connective tissue cells, young fibrous tissue and vessels, and appeared in one or several crops. They usually subsided within two months, but might reappear. Neither pain nor fever accompanied them. In all cases there was heart disease, often grave and progressive; out of 27 cases observed, 12 had chorea. The authors hence conclude that where they are found associated with heart disease and chorea, although no history of rheumatism can be obtained, they give presumptive evidence that the chorea is rheumatic in its origin.

In rare instances we find rheumatism occurring in the course of chorea, as also distinct evidences of cardiac trouble coming on during the attack without an associated implication of the joints.

Prof. Steffen, of Stettin, holds that cardiac murmurs may and do occur in chorea without endocarditis; that these depend upon impaired function of the heart, not only through nervous influence, but also through the obstruction to the circulation of the blood, which is the result of the spasmodic movements of the body.

In estimating the value of the various views, and of the discrepant statistics offered in their support, we must remember that rheumatic histories are often based on insufficient data; that the various muscular and neuralgic pains, often complained of by children, are all classed as rheumatism by many physicians, as well as by the laity; and that the exis-

tence of a cardiac murmur is by many regarded as positive evidence of previous endocarditis and presumably of rheumatism. If we would attempt to reconcile the contending views, we might, with Dr. Byers, refer the initial fault in both rheumatic and non-rheumatic cases, back to some disturbance of the nervous system, which would not be inconsistent with the view now held by many that rheumatism is itself a disease of the nervous system.

W. H. Bigler, M.D.

Pathology.—Ziemssen says: "The sum of our knowledge of the pathologico-anatomical changes (of chorea) is so small that it is scarcely of consequence to attempt to explain the way in which they act upon the functions of the central nervous system."

Since this was written, Dr. Sturges has published a work on chorea, in which he, in the fullest accord with the sentiments above expressed, maintains that it is a *functional disease.* To my mind he establishes his hypothesis.

While a review of this work cannot fail to be unsatisfactory, because of its incompleteness, it will still give some idea as to the theory in question. In considering the subject of my paper, it has appeared best to first briefly note the different pathologies of chorea which have been advanced, and then to present the theories of Dr. Sturges.

As early as 1802 rheumatism was mentioned as a cause of chorea; but the most definite theory which was first advanced was that of Dr. Kirke's in his essay written in 1852, 'On some of the principal effects resulting from the detachment of fibrinous deposits from the interior of the heart and their mixture with the circulating blood.' This at once attracted much notice. He stated in the following words what may be called the origin of the embolic theory of chorea: "I would suggest that many functional disorders of the nervous system, especially chorea, may be thus explained, (*i. e.*, by cerebral embolus.) The frequent existence of cardiac murmur in chorea, and the presence of warty vegetations on the valves of the heart, so commonly found in fatal cases of the disease, are in favor of such a view."

In 1876, accepting this theory of embolism, Dr. Hughlings-Jackson wrote as follows: "I suppose that the excessive movements occurring either in chorea, or in epilepsy, or epileptiform seizures, are produced by discharges of gray matter, which, except for great instability from over-nutrition (not better nutrition), is healthy. We cannot expect to discover with our present means of research, the alterations in gray matter on which excessive discharges depend." "My opinion is," he says further, "that the direct pathological state leading to instability of gray matter, producing choreal movements, is increased quantity of blood in the periphery of the capillary district embolized." "Of course," he adds, "this opinion is hypothetical, and so is every one's opinion as to the nature of lesions unsusceptible of anatomical demonstration." This same author, following Russell Reynolds, thinks that the corpus striatum is the seat of these lesions. He asserts that "the frequent one-sided nature of the movements of the limbs, and their often dying out into definite hemiplegia" are suggestive "as pointing to disease at, or near, the corpus striatum."

Dr. Dickenson, from a minute examination of seven fatal cases of chorea, sums up, as follows, the morbid changes: "In *place*, the changes affected both brain and cord. As regards the two sides of the body, they were either exactly symmetrical or tended to be so. The parts of the brain most amenable, lay between the base and the floor of the lateral ventricles, in the track of the middle cerebral arteries, the substantia perforata, corpora striata, and the beginning of the sylvian fissures. In *kind*, the changes were all connected with vascular disturbance. The injection was general to all the vessels, most marked in the arteries; where the sources of the hæmorrhages could be determined they were always arterial; the degenerations were usually peri-arterial, and the spots of sclerosis similarly placed. The first visible change would seem to be the injection or distension of the arteries, succeeded by extension of their contents to the irritation and injury of the surrounding tissue.

"Of the cord no region was exempt; but perhaps the cervical and dorsal regions were usually more affected than the lum-

bar." Both white and gray "shared in the vascular distension. This condition, however, was usually most marked in the vessels belonging to, or in connection with the lateral part of the gray matter about the root of each posterior horn. This was also the choreic situation of the more definite and special changes." He further remarks: "The nature and steps of the morbid process are open to view, hyperæmia, exudation, and its consequences, but not so the causes in which the series has taken origin. Arterial repletion seems mainly concerned in the development of the disease." As regards embolism, Dr. Dickinson notes the absence of any traces of such a state, and for other reasons besides, concludes adversely as regards the hypothesis.

"The results," remarks Dr. Dickinson, in conclusion, "in muscular excitement rather than in paralysis or loss of sensation, may be associated with the character of the lesions, which are points of irritation rather than planes of section, and, as such, calculated to produce irritation rather than paralytic effects, not so much to cut off, as unnaturally to excite nervous function."

He still further alludes to the similarity between the morbid anatomy of chorea and diabetes, and says: "Every period of life has its own regions of nervous susceptibility: in childhood, the motor; in adolescence, the emotional; in advancing years, the mental; and coevally, or nearly so, that part of the nervous mechanism which instigates glycosuria. Much of the same mental impression may make a child choreic, a girl hysterical, or a man diabetic. And thus both in external origin and in the nature, though probably not in the site of the organic changes, we see resemblances and alliances between nervous disorders, which in their symptoms betray little similarity."

Those who advocate the theory of embolism maintain that "the local periarterial softenings account for the choreal paresis," while the cerebral changes described are somewhat similar to those occasioned by embola, "regard being had to the size of the arteries plugged."

Dr. Bastian sums up his ideas as to the etiology and pathol-

ogy of chorea thus: "I look (certain rare cases excepted) to an altered and often anæmic blood state as its predisposing cause in individuals of a certain age and nervous temperament. Secondly, I look to the initiation in such individuals of a disturbed nutrition in the corpora striata and adjacent parts of the brain, tending to issue, and, often, actually issuing in what may be called a subacute inflammation of these centres, often characterized in part by the production of multiple minute thromboses."

The opinions of Dr. Broadbent have obtained wide acceptance abroad. He believes that chorea is to be located in the corpus striatum and optic thalamus, and accepts partially capillary embolism of these parts as one cause. He would, too, recognize as possible causes many other kinds of disturbance of nutrition of the cerebral ganglia, "as, for instance, peripheral influences arresting the reflex process, direct lesions of the ganglia due to fright, or to mechanical lesions."

He further says: "The processes of chorea are in fact such as weaken the force of the nervous apparatus without destroying its structure. Hence the weakness of the muscular force and diminished sensibility so common in chorea. Hence also its frequent termination in paralysis."

"Delirium of the sensory motor ganglia of the brain," is the term which Dr. Broadbent applies to the condition of the system which gives rise to chorea. The doctrine referring chorea to an altered state of the blood is advocated by Dr. Ogle, and Dr. Hammond's views are in accordance. The frequent occurrence of fibrinous deposits on the valves of the heart leads Dr. Ogle to consider them "as results of some anterior condition of the blood, common also to the choreic condition." In rheumatism and anæmia, "conditions, both of them associated with chorea," Dr. Ogle observes "an excess of fibrin in the blood, which renders it very prone to be precipitated." "May not this hyperinosis," he asks, "be the explanation of the coincidence alluded to? Speculation might suggest that the fibrinous deposits arise from some interference with the degree of solubility of the fibrin induced by the presence of some ununited elements within the blood, produced by the excessive

muscular action and other functional disturbance which exists in the choreic state, this being not in any way related to this state as a cause, but as a consequence."

In relation to the chorea which sometimes arises during pregnancy, Dr. Barnes says: "The condition upon which the latent disposition to chorea depends is some change of nutrition or of structure of the nerve centres, unimportant under the ordinary conditions of life, but liable to be called out into renewed activity under that special increase of central nervous development which is the constant attendant upon pregnancy." Dr. Barnes regards the chorea of puerperal women as usually a revival of the same disorder in childhood, pregnancy being the immediate exciting cause, on account of "the exalted nervous irritability of that condition," this being "a test of the soundness of the nervous system."

Finally, we will offer the somewhat elaborate summary by Dr. Handfield Jones. He says: "The motor centres especially, and also not unfrequently the intellectual, emotional and sensory, in persons of weak organization, fall into a state of paresis, either in consequence of a shock or more gradual injury, or of some toxic matter in the blood, or of peripheral irritation, all of which may generate the same peculiar condition. The paresis in all these parts may take the form of hyper-excitability or of paralysis, the former being much the more frequent. The nerve exhaustion, aggravated more or less by the jactitation, involves "the vaso-motor nerves of the cerebral and spinal arteries especially, and conditionates relaxation of their muscular walls, as well as impairment of the tone of the capillaries and hæmorrhage. These, however, are of course not necessary events, even in fatal cases. Occasionally actual inflammation of the nerve centres results from the hyperæmia. Pulmonary congestion and consolidation may be produced in the same way, and, possibly in some instances, valvular lesions of the heart. This view that chorea is essentially a functional disorder of the motor centres, is in harmony with its frequency in children and females, whose motor apparatus is more prone to be weak and irritable, with its affinities to epilepsy, hysteria, paralysis and insanity."

At this point we will leave the consideration of the pathologies for the present, and look to the relation that chorea bears to rheumatism. This relation is shown to be but slight and of small importance compared with the opinions usually held. Still there is a relationship, and, for its better understanding, you are referred to the analysis of the cases which is here appended. In this analysis the facts are so placed that a more ready comprehension is obtainable than by other methods.

Analysis of 132 cases of chorea with the design of showing the *rheumatic connection*, quoted from Dr. Sturges' work on Chorea:

"In the first sub-series of 51 cases:

1 had had rheumatic fever previously,
2 had had rheumatism previously,
4 were doubtful as to this point,
3 were not ascertained.

In the second sub-series of 49:

4 had had rheumatic fever,
6 had probably had rheumatism,
2 were too doubtful to reckon,
1 was not ascertained.

In the third sub-series of 32:

2 had had rheumatic fever,
7 had had pains—probably rheumatic,
1 was not ascertained.

Hence, 132 cases give 7 who have had rheumatic fever,
14 or 15 who have had pains—probably rheumatic,
6 that were doubtful,
5 not ascertained.

In 73 cases where that point is noted, rheumatism is in the family history of 19; 9 have themselves had rheumatism; 10 have not. Of these 9 who have rheumatism, both themselves and in their families, rheumatism might have been the *immediate* cause of chorea in 2, and rheumatic fever in 1."

The heart symptoms of chorea are of such frequency, and the pathological conditions occurring have attracted so much attention, and given rise to so much discussion, that Dr. Stur-

ges devotes a long chapter to their consideration. After a considerable narration of statistical information, he states three propositions:

"*First.* In the course of the chorea of childhood, the heart is apt to become irregular or uneven, and its first sound to be followed by apex murmur, which is variable in pitch, influenced by posture, seldom audible in the axilla or at the angle of the scapula, and which disappears along with or shortly after the chorea—the heart and circulation suffering no injury.

"*Second.* This liability on the part of the heart, to what, from its signs, would seem to be a functional disturbance, is independent of the violence or method of the chorea, but dependent upon the age of the patient; the younger children being the most, and the elder the least liable, while beyond childhood there is little if any liability of the kind.

"*Third.* These heart signs of chorea—acute rheumatism being excluded—give rise, as a general rule, to no symptoms whatever, affecting the health or comfort of the child. They make no apparent difference in the prospects of recovery or the structural integrity of the heart. Nevertheless, choreic children having this murmur, and happening to die, either with or shortly after recovery from chorea, very commonly exhibit a beading of recent lymph on the mitral valve." The heart and pulse, too, are generally accelerated.

There are two hypotheses relating to these symptoms—one connects the most important symptoms with endocarditis, and "the other asserts that the cardiac signs are intrinsic—a part of the chorea itself." Each of these views has evidence in its favor—and the object in view is to reconcile them. If endocarditis is admitted, "we have to suppose upon this hypothesis not only that endocarditis may arise in and out of chorea, and that the younger the child the greater the probability of this event, but also that cardiac irregularity sometimes precedes and sometimes takes the place of regurgitation, whilst none of the injurious after consequences which attend endocarditis in its other relations are found to ensue here. In the face of such grave objections, we are forced to admit that, "although phys-

ical signs do not contradict it, and post mortem evidence may seem to be directly in its favor, the theory of choreic murmur (not to speak of the other signs) which invokes endocarditis, is too difficult. It is inconsistent with all that we know of that inflammation in its various pathological relations, and apart from these we know remarkably little about it." Dr. Sturges adds: "It is, in fact, by virtue of this vague knowledge, that endocarditis maintains its hold in this connection."

In regard to the other hypothesis: It is generally conceded that an apex murmur is not inconsistent with functional disease of the heart. Regurgitation, due "to a temporary defective action on the part of the mitral valve," is believed to account for the murmurs known formerly as hæmic, anæmic, etc. Bristowe says that an apex systolic murmur is always due to regurgitation. May not the heart murmur of chorea be accounted for on similar grounds?

Dr. Nixon, in discussing functional murmurs, concludes that they result from "this want of correspondence between the fibres of the ventricle, which obliterate the cavity and those which close the valve," an altered function, due, as he believes, "to some defect in the vital power or condition of the heart itself, which leads either to atony of the papillary muscles or derangement of the rhythm of their movement." Dr. Hayden says of this regurgitant murmur that it is "caused by atony and partial yielding of the walls of the left ventricle at the acme of the systole." He has long considered this murmur to be associated with anæmia, purpura and the excessive use of tobacco; later he has included chorea and fatty heart in the same category.

Dr. Jennermann is of the opinion that dynamic murmur is due to muscular paresis. He says: "The muscular tissue of the heart, owing to an altered state of the blood, is easily fatigued, and this liability to premature fatigue extends to the papillary muscles connected with the auriculo-ventricular valves. After any undue exertion of the cardiac muscle a temporary paresis of the musculi papillares ensues. In consequence of this the valve flaps intrude into the auricles with every ventricular contraction; that is, a transient functional

insufficiency of the tricuspid and mitral valves is established. As the organ regains its normal energy they grow fainter and ultimately disappear."

These hypotheses seem to account sufficiently well for the character of the choreic murmur. This, however, is not all; the uneven action of the heart and its acceleration are still to be accounted for. After further discussion, Dr. Sturges says that "the heart sympathizes with chorea in one way or another throughout life, or at any rate until that late period is reached when the affection is both rare and difficult to identify." "The choreic heart is unrythmical or irregular in early childhood, accelerated in youth and left undisturbed in old age. Thus the earliest period of heart sympathy, that of cardiac irregularity with or without acceleration, corresponds with that chorea which is a purely motor disorder, the earliest transition from infantile convulsions, and differing from it mainly in the character of the movement and the implication of the emotional centres; but resembling it in its exciting cause, wide range, and conformity everywhere to a single pattern." "In a like manner the cardiac acceleration of youthful chorea, with or without murmur, corresponds to that form and period of the affection where the several muscular movements have been differentiated, and there is no longer a single and uniform response, but each department of the body liable to chorea responds after its own manner to a disorder which is now, first mentally apprehended, and intimately connected with emotional exaltation."

The paresis that is common to chorea, particularly in young children, may still more fully explain the heart symptoms. "Weakness and relaxation of the papillary muscles" being admitted "as a possible cause of initial regurgitation, and if a debility of this kind may occur temporarily, from tobacco smoking or nervous exhaustion, much more should it arise in chorea, where, apart from muscular fatigue, there is especial liability to paresis extending, as it would seem, to all the muscles which the disease is able to affect." In anæmia this condition causes an "equable murmur," but in chorea it is frequently "variable and inconstant," appearing and disap-

pearing without appreciable cause "as does the similar paresis of voluntary muscles, with which, indeed, as I have repeatedly noticed, it may be strictly synchronous, both in its time of arrival and duration."

And lastly, how shall this objection be answered? What gives rise to the "deposit of recent lymph on the edges of the mitral valve"? We know that this condition has frequently been found in persons dying with chorea. The "bead-like arrangement" renders true endocarditis improbable, as well as does the "limitation to the margin, rather than the auricular surface of the valve." Ulceration is never found, and "the valve is found to be in a normal condition," when a period of time occurs between chorea and death. Dr. Dickinson first suggested the idea that "the collection of fibrin" was "the consequence and not the cause of regurgitation," and Dr. Sturges, in this connection, uses these words: "Whether an imperfect closure of the mitral orifice, or rather such uncertain action of the valve segments as closes it at one time, but not at another, at the approach of death, and when, with the flagging action of the heart, fibrin is very readily deposited, so determines the seat and method of such deposit as to produce, at the edge of the valve, the bead-like appearance we see, the condition which immediately precedes death being one of the essential factors of the occurrence." The conclusions of the chapter are summed up in this manner: "The facts are that in chorea the heart is apt to sympathize with the voluntary muscles at all ages up to the adult period, this sympathy being shown as well by dynamic murmur as by accelerated action, unevenness of rythm, and, not seldom, the excited impulse common in hysteria, the particular manner of response being dependent upon the age of the patient. The hypothesis is that these several modes of heart affection correspond with as many modifications of chorea, which are exhibited not in the heart only, but in the voluntary muscles as well; these several regions sharing jointly, each in its own degree and after its own manner, in a disorder the area of whose influence is coextensive with that of ordinary emotional disturbance: and, particularly, that in

all such variations, the motor element of the affection is represented mainly by inequality and unevenness of the cardiac rythm, the emotion element by acceleration, and the paresis element by dynamic murmur."

Reviewing with great exactness the questions as to chorea being a *fatal disease*, Dr. Sturges derives the following conclusions, which are here quoted in full:

"1. Chorea, regarded as a disease of itself fatal, belongs almost exclusively to puberty, and especially to female puberty; its immediate exciting causes having distinct reference, in many instances, to conditions of unusual sexual excitement.

2. Besides the operation of sexual causes, mental disturbance has to be reckoned; not fright only, but worry, excitement and despondency also, while the force and influence of such impressions is to be seen in the course as well as in the origin of fatal chorea.

3. Acute rheumatism appears as a cause of fatal chorea in but a small proportion of cases; yet the association, infrequent as it is, is distinct and unquestionable.

4. Chorea in its fatal, no less than in its non-fatal forms, shows strong preference for the female sex at all ages. Children, however, very rarely die of it, and boys, practically speaking, never.

5. Mental excitement, in varying degrees (although not among the symptoms of ordinary chorea), is met with in so large a proportion of its fatal examples that we are justified in regarding this concurrence as of bad augury.

6. "Vegetations," new or old, on the auricular surface of the mitral valves, with or without similar deposits on the aortic valves, and sometimes with pericarditis, are met with in the great majority of cases dying of, or with, or shortly after chorea. This condition, however, does not, as a rule, contribute directly to the fatal issue; it is found equally amongst those who die *with* and those who die *of* chorea; and in some of the most marked and "typical cases of fatal chorea, the valves of the heart have been found absolutely healthy.

7. There is no other post-mortem condition, except that which concerns the heart, occurring with sufficient frequency or uniformity to be regarded as characteristic of fatal chorea."

Returning at this point to the pathologies of chorea, as detailed in the first part of this paper, we will follow Dr. Sturges in their consideration. He states these propositions:

1. That there is no morbid condition as yet anatomically described which, so far as we have independent knowledge of it, is capable of producing symptoms at all similar to those of chorea.

2. That the hypothesis which, apart from demonstration, really provides the best for the actual phenomena of chorea, do not in fact present any distinct picture of a definite morbid change.

3. That having regard to the special characters of chorea, it is difficult to conceive of any morbid condition whatever, anatomically demonstrable, calculated to produce it, or indeed compatible with it.

In regard to the first proposition, he takes up the theory of embolism—shows how entirely at variance the symptoms of chorea are with those due to the plugging of the cerebral vessels by emboli. These differences need not be detailed here. Even if it could be shown that "this particular morbid condition was constantly present in chorea, the observation would offer a new difficulty." Further search would still be required "for the structural basis of the disorder." But most observers have failed to find these minute emboli. Dr. Dickinson never saw a case "in which the well-known blocking (of embolism), as found after death, had been conjoined in life with choreic symptoms." So the other theories advanced to explain the production of choreic symptoms fail as does that of embolism. "It thus appears that the pathology of chorea which really takes into account and satisfies the actual phenomena of the disorder does so in fact by eluding anatomical description altogether," "and in the last resort the trammels of anatomy are broken through, and the condition of the corpus striatum in chorea is described as one of *delirium*."

The second proposition we will illustrate with but one example: Suppose that "an increased access of blood to a district which is embolized, but otherwise healthy" is by some means the cause of chorea, "is such a condition really compati-

ble with the phenomena it professes to satisfy?" "I maintain that it fails, both in respect of embolism and in respect of increased access of blood." We know that in cerebral embolism, the gray matter soon "disintegrates and softens" from improper nourishment. Hence, if "this form of embolism would give rise first to chorea, it would give rise to paresis afterwards." Chorea would not be the recurring disease which we see; it would be intimately allied with paralysis, else the hypothesis which provides embolism as the cause of chorea, must provide something besides which shall presently dispose of such embolism."

In support of the last or third proposition, we have the characteristic irregular movements of chorea, the "relative disorder" of the disease contrasted with what might be supposed to originate in one affection of some definite portion of the brain. So "from movements of a precise and definite kind which result from the earliest stimulation (in experiment) of a particular motor center, we pass to a corresponding spasm, and from that to a paresis, these several gradations corresponding with increased irritation and the production eventually of structural injury."

So, too, if we regard the *ataxy* of chorea we will see how greatly it differs from that of a progressive ataxy due to spinal disease. In conclusion, Dr. Sturges adds: "If morbid anatomy will serve at one point, it will fail upon a complete review, and can only be maintained by having regard to certain isolated symptoms at a particular period of their development."

And now for the consideration of the direct evidence that chorea is a *functional disease*. We have just seen that "the movements of chorea * * * give no warrant whatever for assuming the existence of any definite morbid change." "Untaught muscles, and such as have never been employed as agents of intelligence, never suffer chorea." "The arms suffer chorea much more than the legs, the hands more than the arms and the face (so soon as sensitiveness begins to settle there) more than any other part of the body."

"The precise manner (of chorea) is due to this: that the

muscles concerned, having been educated more or less perfectly in certain kinds of movement, are suddenly thrown back in their education by some nervous shock which renders them restless and unruly, while the operation of the will no longer sufficing to regulate the limbs, tends rather to disfigure the movements it seeks to avert." The child does not, however, lose all power over the affected limbs; a sudden effort of the will may, at times, effect the definite movement desired. "But the habitual condition is one of weak restlessness when there should be quiet, and of exaggerated, misdirected movement when some muscular act is required." "In early childhood the over-movement is easily concurred in and hardly deforming, but in adult life the will being in active opposition, the disorder exhibits a corresponding distortion and spasm."

Regarding chorea as a motor disorder, there are certain modifications "which concern its mental or psychical associations." In these respects chorea not only varies with the age and temperament; it is affected visibly by passing events, and may be of one form one day and another to-morrow."

Speaking of the "ataxy of chorea," Dr. Sturges says "we get the pattern * * * in the many conditions of mental excitement and perplexity to which all mankind are liable. A choreic child may fail utterly in some muscular act one day which it will accomplish easily the next." "Again, the observation of others has the effect sometimes of aggravating and sometimes of controlling choreic ataxy, or it may have both these effects at different times in the same subject."

Observation of the "actual starting place" of chorea furnishes a further argument in favor of the hypothesis under consideration. "In young children (the hands, one or both, but the right much more than the left) are, in a large number of instances, the parts first disturbed." Now "hand chorea," which is extremely rare, except in young children, coming as it does without "obvious nervous shock or rheumatism," may find its explanation in the fact "that the work and competition of school may furnish occasion for mental disturbance which finds expression in the part most exercised."

It may likewise be shown that there is "a tendency on the part of those muscles which are most directly beset or embarrassed to suffer the disorder first and most." This principle is illustrated in a general way in the "successive modifications which chorea undergoes at the several periods of life," and "individually," when a "particular group of muscles" has been influenced by some accident. For instance, a boy's face was scorched from an explosion of gunpowder, by which he was greatly frightened. The eyelids became affected with choreic twitching. A little girl got the fingers of one hand pinched; these fingers became choreic. So, too, chorea originates "on the side from which the alarm comes." For example, a dog jumping at a boy caused a chorea to appear on the side of the dog's approach.

It must not be forgotten that in chorea, even of the most violent form, "the muscles still maintain their accustomed concert," for "in those parts of the body where the several muscular uses are most distinctly differentiated, there, in exact proportion to the degree and perfection of such differentiation, do we find more or less perfect separateness of choreic movement." For example, "the hands and fingers are often choreic without the arms." The "movement of one arm is common enough without need or suggestion of movement in the other, but the movement of one leg implies movement of the other; accordingly chorea of a single arm is very common, and chorea of a single leg is very rare. But, most of all, do we find this rule exhibited in the face. One sided chorea of the face is the exception; one sided paralysis of the face is the rule." "But we have yet to consider chorea in its connection with mental disturbance, hysteria, delirium and mania." The important feature is this: "Chorea in the child is usually a purely motor disorder." "At or after the times of puberty" the mental symptoms may appear, and the two "sometimes combine and sometimes alternate." In this respect it resembles hysteria.

"But the manner in which the voluntary muscles are put to use both to express and take the place of emotion, is best seen in childhood." The phenomena of grief in the child find quick abatement in the act of sobbing, and in the movements of the

body, and "conversely, any violent bodily exertion will always bring children to the verge of emotion." These facts afford a "clue to the various ways in which mental phenomena of chorea associate themselves with its motor disorder: we learn besides why mere restlessness should be the particular mode of such disorder almost exclusively in early life."

The "progress and mode of development" of chorea next engage our attention. Usually an interval separates the disease from its exciting cause. But when the disorder has once been noticed, "it runs at once into prominence." "From this point its progress and duration are extremely variable;" with very young children the progress is extremely uneven, but when improvement begins it is rapid. Relapses are very common. "The striking manner in which the first distinct sign of amendment becomes a foothold for further recovery is among the many characteristics of chorea testifying to its real nature." Equally convincing is the "long-enduring chorea of young children, when the patients are both indifferent to their disorder, and incapable of applying the effort or attention necessary for its cure." As, however, life advances, the education of the voluntary muscles gives them the power to resist the tendency to the disease, and persons become increasingly less liable to chorea. "Not because they have escaped any of those liabilities to embolism and nervous deterioration which are said to produce it, for those liabilities are every year on the increase, but because variety of employment implies muscular accuracy and obedience."

"Again, what hypothesis, except the functional one, can be made to provide for a disorder which is recurrent as chorea is, recovering perfectly time after time; and, at last, when adult life is reached, finally disappearing, the signal for this departure being nothing else in the world but the departure of childish ways and the substitution of new modes of response to nervous impressions?"

The further fact that fright is a most frequent cause of chorea favor strongly the functional hypothesis. "Now, if it is admitted that fright is an efficient cause of chorea," and who can doubt it, "it is at least highly probable that other forms of mental disturbance operate in the same way."

Then, we know that hysteria is frequently connected with chorea. These two affections are so similar that what we "should call chorea in the child we often call hysteria in the woman; while not seldom the motor and the emotional infirmity are so combined, that we see in the same subject, now one and now the other more prominent."

Against such arguments as these last mentioned, certain objections can be made. Some of these will now be noticed.

"1st. Chorea is an enduring affection, which often does not even commence until its supposed cause has ceased to operate.

"2d. Chorea occurs in connection with paralysis, convulsions, and other similar phenomena indicative of cerebral or nervous lesions, if not uniformly, yet too often to admit of the supposition that the connection is accidental, which, added to this, chorea ending in death actually exhibits definite, morbid changes, endocarditis, as a very general rule, nerve changes such as minute emboli and softening, in an aggregate too large to be neglected."

It has already been shown why the disease may last so long in young children. In grown-up girls and young women, the duration is not usually great — with them there are always mental symptoms which are excited by the disorder, and the exciting causes such as menstrual disturbances or pregnancy are of such temporary character that recovery usually follows their suspension. When chorea persists into adult life, or comes in old age, we find that it is because the "childish mind" exists. In such instances there is not much to hope for in the way of recovery. "The disorder has gained ascendency over the individual at his best, and there is nothing in the man's future, as in the child's, likely to dispossess it."

It is stated in the objections that "chorea occurs in connection with hemiplegia, convulsions and endocarditis," symptoms which, in fatal cases, commonly "depend upon definite structural lesions." "All such examples in respect of the evidence they furnish of morbid change have this fatal objection, that they exhibit not chorea merely, but chorea disfigured, owing to its combination with something else." The determination of the "precise sort of lesion" is rendered more probable by

these "additional symptoms" but "they do not help toward determining the pathology of chorea, nor can they be accepted as illustrating it." Hence this dilemma presents itself: as long as simple chorea exists, there is no sufficient ground for "asserting any such morbid change as anatomy would recognize," while the complications with other symptoms renders the "proper post-mortem signs of the simple affection extremely difficult of separate recognition."

"But while we properly insist upon keeping the pattern of simple chorea distinct and separate, there is reason for believing that this purely functional disorder may, of itself in some rare instances, so affect the nerve centres as eventually to involve other parts of the body besides those first concerned," or "actual structural deterioration" of nerve centres may originate from the long continued "motor disturbance." How otherwise are we to account for facts like these? Chorea which began in one arm is soon seen in the "leg of the same side." "One sided chorea may be converted into convulsion or hemiplegia of the same side, or the converse may happen. Distortion of a choreic limb may occur from contraction of the flexor muscles."

Nor can the functional hypothesis be said to account for every case of "permanent chorea." Some of these present a very obscure pathology. "Yet the more we lay stress upon the few instances of chorea having such issues as these (*i. e.* death and structural lesion) the more we bring into prominence that general law of the disorder which exhibits it as a harmless and a temporary affection, wanting in all those symptoms which imply irritation or destruction of nervous structure."

Let us finally state the gist of the entire subject in these words of Dr. Sturges. He says that the chorea of childhood is "An affection without paralysis and without spasm, and often with no disturbance of the general health. The symptoms are not those of disease but of exalted function, and their recurrence many times in the same subject and the same limbs with no ultimate harm, gives conclusive proof that these repeated irritations are not destructive. Chorea, in a word, for its full development requires the services of a brain

and cord structurally uninjured, and as soon as textural injury intrudes, it will alter its proper form, and give room to one or the other of the recognized symptoms of nervous disease."

CLAUDE R. NORTON, M.D.

Symptomatology and Exceptional Forms.—Chorea is chiefly characterized by irregular clonic movements of the voluntary muscles. Sturges has aptly said, "That to the observer chorea appears as an exaggerated fidgetiness." It is, indeed, an extravagant exaltation of that continual unrest which is the natural characteristic of childhood. The disordered movements are not entirely beyond the controlling influence of the will; for a moment the motions can be checked, but the stillness cannot be maintained for any length of time.

Usually an interval separates the outbreak of the disease from its exciting cause. This is especially true if the affection has had its origin in fright or other mental shock. The interval may appear longer than it really is, for the early symptoms of chorea are often mistaken for fidgetiness, its true character not being discovered until later and more violent motions are exhibited.

A child in which chorea is about to develop is observed to be fretful and impatient from the slightest cause. The motions are noticed to be hurried and inexact, hence such patients are scolded for carelessness, when disease is the cause of their mishaps.

The voluntary muscles alone suffer from chorea, and these become more liable to the affection in the order of their use as intelligent instruments. Untaught muscles, such as have not been employed as the agents of intelligence, rarely become choreic. The truth of this is evidenced by the fact that different muscles become affected at different ages.

In young children, for instance, the muscles of the hands and fingers, especially the right hand, are most liable to exhibit the disordered movements of the disease. These muscles are of all others the earliest educated as well as the most thoroughly trained in early childhood. In older children and in grown-up girls the muscles of the face become the

favorite seat of the disease. In infancy and early childhood these muscles usually escape, but later, when they have been trained to obey the slightest impulse of the will, answering, as they do, every emotion of the mind with rapidity and accuracy, they are more frequently attacked than any other set of muscles. In the chorea of adults this peculiarity still continues, and gives us those horrid grimaces constituting a horrible feature of the disease,

The upper portions of the body are more frequently attacked than the lower, and the left side is more liable to choreic manifestations than the right. The hands or the face are sometimes affected alone. The legs are never choreic *alone*. They may be first attacked, but after a very little while other parts beside the legs will exhibit symptoms.

Restriction of the disease to one side of the body has been observed, the so-called hemi-chorea, but if the movements become at all violent, the other side will become involved. It is peculiar that the left side is more apt to be affected than the right, and that in bilateral chorea the movements on the left side are often more violent than on the right. A muscle affected by chorea alternately contracts and relaxes, not so violently as in spasm, nor is it entirely beyond the control of the will. These spasmodic movements affecting various muscles produce those ungainly, awkward and grotesque actions which constitute the disease.

Such patients stumble in walking; extend their arms without cause; open and shut their hands; bob their heads; twitch their shoulders from side to side; move restlessly upon the seat they occupy; shuffle their feet about; contort their faces, and in many other ways evidence the existence of some unusual disorder.

If chorea becomes both violent and general, a pitiable sight is presented. The jaws open and snap together again with such force as to break off the teeth, and bury their ragged stumps into the yielding gums.

The legs are drawn up against the body and then shot out to their full length, thus making progression impossible. The face is distorted by the most hideous grimaces. The muscles

of the trunk, contracting and relaxing, tumble the patient out of bed or pitch him headlong from the chair he may be occupying. At last every *purposed movement* is impossible; the patient can no longer feed himself; he drops his cup or tosses its contents over his person. He cannot dress himself without assistance, and his speech becomes slow, thick and indistinct.

The temperature of the body is increased in the beginning of the disease, but later it falls below the normal and remains so. The pulse is commonly quickened and not unfrequently is found to be uneven and distinctly irregular. During severe paroxysms it may exceed 120 beats per minute.

It is universally admitted that during the course of chorea a soft, systolic murmur is apt to arise. This murmur is variable in tone, is often influenced by posture and exercise, and appears and disappears without explanable cause. It is most audible at the left apex, but is productive of no sensations of its own, nor is it indicated by any outward sign of disturbed circulation.

The murmur occurs most frequently between the second and eighth years. In patients over fifteen, the symptom is not often noticed.

Beside the murmur, an uneven and irregular action of the heart is often noticed. This, together with the mitral murmur, has led Sir Wm. Jenner to believe that the papillary muscles of the heart may become choreic; if so they are the only involuntary muscles which have exhibited the disease.

Mental disturbance has not been noticed in very young children. After ten years of age it is sometimes seen, the child becoming fretful, capricious and passionate. This condition of mind may result from the disorderly action of the muscles, tiring the child; or, as in some reported cases, it may be the result of absolute fright, induced by the wild, uncontrollable action of his muscular system.

Long continued chorea certainly blunts the intelligence of the sufferer, he becoming dull and apathetic.

As to the effect of recent chorea upon the intelligence, quite a diversity of opinion prevails. Some affirm that mental dullness is a constant symptom, and that when no other defect is

observable a decided moral obliquity will be found if looked for. Other observers assert with equal positiveness that intellectual impairment is only an occasional result of chorea, about 10 per cent. of recent cases exhibiting cerebral disturbance.*

Individually, we are inclined to the belief that intellectual impairment, aside from the irritability naturally due to an annoying affection, is an unusual attendant.

In deciding upon the mental condition of a choreic patient, we are to bear two things in mind—

1st. That the instruments of intelligence are impaired. The facial expression and the manner of using the several members of the body are the objective symptoms upon which we usually rely in determing the mental condition. The muscles of the face and limbs, as we have shown, are the favorite seats of choreic spasm. It is well known that they may be so convulsed and distorted as to give to the person the appearance of idiocy, and yet the intelligence remain really unimpaired. The diseased instrument has misled the observer.

2d. We are not to forget the effect produced upon the mind of the patient by the rebellious action of the voluntary muscles. The repeated failures of the muscular system to obey the patient's will, produces in him a condition of distrust and uncertainty, and this causes him to hesitate and appear at a disadvantage when called upon for tests of his intelligence.

Still another cause, producing an appearance of weakened intelligence, is the *constant attention* which the patient is compelled to give to the self-moving parts of his body. This keeps the mind occupied to the exclusion of other matters.

The quiet, which sleep produces in the most violent case of chorea, is a striking symptom and one of great value in a diagnostic sense. The positions assumed by the patient in bed, should be observed. He lies upon his back to give free play to his agitated muscles. The constant motion of the trunk, the working of the arms and shoulders cause him to slide down in bed, and, as in enteric fever, the violence of the disease can be determined by this symptom alone.

*See discussion in New York Neurological Society, *Medical Record*, vol. xx, page 46.

The reckless disposition of the arms, when sleep at last quiets his movements, is characteristic; they remain just where they have fallen: over the chest, hanging over the sides of the bed, and in other unusual positions.

Speech defects in chorea are of many kinds and degrees of involvement. Sometimes it is uncertain from chorea of the muscles of inspiration, especially those of the abdomen; or the laryngeal muscles themselves may become choreic, causing the words to be jerked out with violence. The vocal apparatus itself may suffer, and thus fail to respond to the will—the patient being unable to reply to a question propounded to him. Again, imperfect muscular co-ordination occurs, giving that confused speech so often heard in intoxicated persons.

Speech disorders bear no relation to the violence of the chorea, appearing often in the mildest cases. If occurring, they are among the earliest symptoms of the disease.

Ataxia is a common symptom, and differs from that which accompanies diseases of the cord, as being exceedingly variable and intermittent. To-day a child will be utterly unable to perform an act which to-morrow he can do with ease. This symptom is often dependent upon observation; in some cases controlling—in others, aggravating the condition.

The effect of observation upon the convulsive movements is of value in forming a prognosis. Where we find the movements increased when the patient is observed, and lessened when he is unobserved, the case is much more likely to recover quickly, than where we find the patient having considerable power of control when he makes the effort, but loses all control when the mind is occupied, as at play, or engaged in some other simple muscular exercise.

Sturges has observed that those muscles which are most directly beset by the exciting cause suffer most, and are usually the first attacked with chorea. He mentions the case of a girl who stooped to pick up, as she supposed, her brother's cap, but found instead a dead rat; the hand used soon after became choreic. A boy frightened by a dog jumping at him became choreic on the side nearest the dog. In another case, where gunpowder was exploded near the face, the eyelids be-

came choreic. This is an interesting observation and may afford a clue to the elucidation of some of the mysteries of chorea.

Even in the most violent forms of the disease the muscles maintain their accustomed concert; thus the muscles of the hands are accustomed to being used without calling into play those of the arm. In chorea we find the hand choreic, while the muscles of the arm are as steady as in health. The foot and leg are commonly used together, and in chorea it is an unknown thing to have either the foot or the leg choreic alone. The muscles of the face are used, the two sets together, and chorea affects them simultaneously. A one-sided chorea of the face has never been reported.

The effect of chorea upon the general health is exceedingly variable. In young children no appreciable effect is witnessed. They take it composedly and eat and sleep well. In patients beyond the age of puberty, the general health is often impaired. The appetite is lost, the face pallid, and the body worn and exhausted from the continual motion and broken rest. The bowels are constipated and the urine, according to the latest authorities, presents nothing of diagnostic value.

As a general rule, however, there is neither failure of nutrition, loss of sensibility nor alteration of the muscular tissue. If the disease is long continued, the limbs which are most disturbed become weakened and their muscles flabby.

Certain groups of muscles may be entirely disabled, those of the wrist being especially liable to suffer, producing the so-called "dropped wrist." The condition here is not a paralysis, but rather a contraction of the flexors of the joint.

Paresis, however, does occur, and is distinguished from other forms by its sudden access and its equally sudden departure. It is met with more frequently in the chorea of the young than in any other form.

As Exceptional Forms we would mention the chorea of old age described by Charcot. The movements here are slower than in youth, are less varied, and more apt to be rythmical.

Robert Barnes has called attention to a form of chorea to which pregnant women are liable. The movements are very

similar to those already described. It differs from the ordinary form only in the tendency it has to develop mania and delirium. Patients who have once had chorea seem most apt to develop the disease. It may occur at any stage, but is most likely to show itself during the first half of pregnancy.

Chorea has been noticed during constitutional syphilis, and from the fact that specific treatment seemed to benefit the patient, it has been assumed that the disease may originate in a syphilitic dyscrasia.

Many other exceptional forms have been recorded, such as the electric chorea of Italy, the dancing mania of the middle ages, and the tigretier of Abyssinia. The various leaping and dancing disorders, displayed in modern times by religious enthusiasts, have been undoubtedly choreic.

The "jerks" which were so common in the South and West a generation ago, and the "leaping ague" of Scotland belonged probably to the same family.

Besides these we have certain convulsions of single muscles, called by the French "*tic-non-douloureux*," which are also choreic in their nature.

W. B. Trites, M.D.

Diagnosis.—Chorea, as it manifests itself in children at the present time, may be easily distinguished from all similar affections as soon as the persistent, irregular twitching muscular movements are fully developed; but in the early stage, when there is nothing to be observed but a certain degree of awkwardness in the voluntary movements of the child, caused by an imperfect co-ordination of muscular action, it may be easily overlooked. Locomotor ataxia presents features somewhat similar to the choreic phenomena, but the purely ataxic movements differ from the latter in occurring chiefly or exclusively during willed actions, and in disappearing or becoming scarcely noticeable during rest. The irregular twitches of chorea continue during rest, and even prevent the patient from getting to sleep in serious cases.*

If we bear in mind the fact, that chorea is characterized by

* Dr. Weir Mitchell describes a form which is exceedingly rare in which the automatic, choreic movements vanish entirely during volitional acts.

the irregular persistent twitchings as mentioned above, we will not confound the affection with tremor as it occurs in paralysis agitans, or chronic poisoning from alcohol, lead, mercury, opium, tobacco, etc., for this consists of oscillatory movements following each other in rythmical order. The *rythm* of the movements characterizes tremor, the *irregularity* chorea. In both there may be periods of paroxysmal increase in the intensity of the movements, but nevertheless they always retain their distinguishing features, and in other respects differ so widely as to require no further comparison.

After puberty and in females, hysteria may develop a train of symptoms very much like chorea. Although a careful study of the psychical condition of the patient and the changeable character of the symptoms will aid us in recognizing the hysterical tendency, yet eminent authors have confounded the two diseases, and Hammond says, page 716, of his Diseases of the Nervous System, that it must be confessed that there are instances in which the diagnosis between chorea and hysteria cannot be clearly made out.

The epidemic form of chorea, as it manifests itself in seminaries, etc., where there are a number of young women thrown together, often partakes of the nature of hysteria, and it is likely that the epidemics of the disease which occurred in the fourteenth and fifteenth centuries, were somewhat of the same character.

The irregular spasmodic muscular movements that are confined to single muscles, or a group of muscles supplied by a single nerve, resemble choreic twitchings, as in spasmodic winking, stuttering, etc., and have been classified under the head of "local chorea," but these, as well as those arising from an improper co-ordination of the particular muscular movements connected with the patients occupation, as in writers', telegraphers' and musicians' cramp, are restricted to a definite locality, or part of the body, and are therefore unlike the usual form of chorea proper, for although chorea may affect a single limb—as an arm, for example—it mostly extends to the other arm in time and always involves the trunk as it passes over. In writers' cramp, the patient may find the other arm

becomes affected, after he has learned to use it on account of the disease in the first, but the trunk is left intact.

The sudden twitches, or convulsive movements which often occur when falling asleep, by which one or both limbs may be drawn up suddenly, may be classified in the same category. They originate from over-fatigue, and may occur in otherwise perfectly healthy persons, and disappear when the nervous energies are regained by rest, and only occur when will-force is being withdrawn by sleep. Although a study of the pathology of these troubles may bring us to the border-land of chorea, their main features are so different that it is easy to distinguish them from this affection.

The most difficult time to diagnose chorea is in its early or incipient stage, and yet its early recognition is important on account of its influence upon the management of the case.

It is fortunate for the physician to be able to examine the case when the patient's attention is diverted so as to be able to compare the muscular movements with those that occur when the patient is cognizant of observation. At first the will-power may be able to partly control the irregular movements, or the patient may try to cover up his infirmity by other voluntary movements which follow immediately after the involuntary twitches, yet, as no definite object seems to be accomplished by them, their purposelessness strikes the observer as quite unnatural and by diverting the patients so as to do away with the voluntary disguise, their true character becomes apparent.

If a child, suffering from chorea, is directed to stand perfectly still whilst it is being observed, the evident effort required to do so is of diagnostic value. If the disease has developed, the arm or leg will twitch occasionally, and a glass filled to the rim will be passed to the lips with evident embarrassment of motion, or be spilled suddenly by a twitch after it has reached the goal in safety.

In childhood the history of some previous rheumatic attack or the presence of endocardial trouble, the result of rheumatism, is of diagnostic value.

Prognosis.—During childhood chorea usually runs a favorable course and ends in recovery in from one to three months* under allopathic treatment.

If, however, the contractions become very severe and deprive the patient of sleep, interfering also with eating, or where serious heart trouble from rheumatism complicates the attack, a fatal termination may be feared. Embarrassed respiration and subsultus tendinum in place of the choreic movements precede death in many instances.

In the absence of proper treatment relapses frequently occur, and may be either more or less severe than the original attack.

The disease may pass into the chronic form and persist for years; the prospect for cure decreasing as time goes on.

Intercurrent febrile attacks, such as are attendant upon the development of the exanthemata, may increase the irregular twitches at first, but they mostly decline very perceptibly from this influence. Afterward, nervous irritability, partial paralysis and intellectual imbecility, are the sequelæ that have been most frequently observed.

Hygienic Treatment.—Our success in treating chorea depends a good deal upon the home influences which surround the patient. If home is distasteful, if there is quarrelling and unhappiness there, a sensitive child is alternately subject to the influence of such emotions as fear, pity, anger, etc., so that but slow progress is made toward recovery. These influences can only be avoided in such cases by having the child removed to some other locality, as from the city to the country, or to the sea-side, which benefits some cases very much. Salt water baths, with brisk rubbing of the skin, are beneficial in all cases able to stand bathing. Medicated baths have been recommended, but will hardly be required under our system of treatment. Of these, the sulphur bath has been most used. The shower bath, the hot-air bath, ether spray directed to the whole length of the spine, the application of ice bags to the spine, have all had their advocates. They will all do harm if they frighten or worry the child.

Out-door exercise and pure air in the sleeping apartment

* Meigs and Pepper, Diseases of Children, p. 595.

give a relish for food, which is absolutely necessary to promote a healthy condition of the nervous system. Insufficient food may be a cause of the disease, and suggests the proper remedy when it is recognized as such. As soon as the disease manifests itself in children they should be removed from school, and study should be interdicted. Over-fatigue of the muscular system is to be avoided, and rest enjoined at proper times. When sleep is disturbed by the twitches, every effort is to be made to avoid awakening the child either in day time or at night when it is at rest. After rheumatic attacks, all children may be considered liable to chorea; consequently, more than usual care should be observed in the domestic treatment of such children, especially if they are of a very nervous temperament.

Instead of subjecting a choreic child to ridicule, every effort should be made by kind treatment and encouragement to strengthen the will-power so that it may hold the irregular movements in subjection as far as possible. On the other hand, over-indulgence weakens the will-power and must be avoided. The power of the will over irregular muscular movements can be strengthened by regular gymnastic exercise. Trousseau has seen beneficial results follow the execution of rythmical movements guided by a chant or simple tune sung by the patient himself, or made to conform to the movements of some instrument, as the pendulum of a clock. He says, "it would seem as if a strange will replaced, after a a time, the patient's will which was unable to co-ordinate the movements which itself commanded."

To insure the execution of these simple movements, they should be *simple at first.* Such, for instance, as raising and lowering the arm, or flexing and extending it, alternately and rythmically, then beating time with the feet, or keeping step, or walking in step, slowly or quickly, and then running. After this, the more complicated gymnastic movements should be attempted, such as raising the body by the arm on to the cross bar, etc. Sexual excesses or premature sexual excitement are always to be remembered as of great injury to choreic patients. Constipation, worms and uterine diseases may be ex-

citing causes which require to be taken into consideration.

When the choreic movements are intense, restraint may be called for. A good plan consists in covering the floor space with two or more thick mattresses placed alongside of each other for the patient to lie upon, as it is impossible for him to stand or sit. The sides should be enclosed, and will have to be padded, or else the patient's extremities may be covered with wadding in cool weather to prevent him doing injury to himself by knocking his body against them.

B. F. Betts, M.D.

Medical Treatment.—In undertaking the cure of chorea, or any other disease or group of symptoms, it is necessary that we have some fixed rules upon which to base our treatment. From no other source can we derive as good information or as reliable principles for guidance, as from Hahnemann's Organon. To that guide-book, therefore, we will refer for a few paragraphs, which are far too seldom quoted now-a-days, or even referred to for private information:

"*The physician ought to search after that which is to be cured in disease, and be acquainted with the curative virtues of medicines, in order to adapt the medicine to the disease. He must also be acquainted with the means of preserving health.*

"§ 3. When the physician clearly perceives the *curative indication* in each particular case of disease—when he is acquainted with the *therapeutic effects of medicines* individually—when, guided by evident reasons, he knows how to make such an application of that which is curative in medicine to that which is indubitably diseased in the patient (both in regard to the choice of the substances, the precise dose to be administered, and the time of repeating it) that a cure may necessarily follow—and finally when he knows what are the obstacles to the cure, and can render the latter permanent by removing them; *then only can he accomplish his purpose in a rational manner—then only can he merit the title of a genuine physician, or a man skilled in the art of healing.*

"*In the cure of disease, it is necessary to regard the fundamental cause, and other circumstances.*

"§ 5. When a cure is to be performed, the physician must avail himself of all the particulars he can learn, both respect-

ing the probable *origin* of the acute malady and the most significant points in the history of the chronic disease, to aid him in the discovery of their *fundamental cause*, which is commonly due to some chronic miasm. In all researches of this nature, he must take into consideration the apparent state of the physical constitution of the patient (particularly when the affection is chronic), the disposition, occupation, mode of life, habits, social relations, age, sexual functions, etc."

And now comes that most important principle which is so often entirely lost sight of in a blind search for the physiological changes and pathological conditions in disease, which, even when found, contribute so little toward accomplishing the very first dictate of the Organon—that which should be the chief end of every medical man: "The first and *sole* duty of the physician is, to restore health to the sick." The principle, or *institute*, I refer to is,

"For the physician, the totality of the symptoms alone constitutes the disease ! !

"§ 6. The unprejudiced observer (however great may be his powers of penetration), aware of the futility of all elaborate speculations that are not confirmed by experience, perceives in each individual affection nothing but changes of the state of the body and mind (*traces of disease, casualties, symptoms,*) that are discoverable by the senses alone—that is to say, deviations from the former sound state of health, which are felt by the patient himself, remarked by the individuals around him, and observed by the physician. The *ensemble* of these available signs represents, in its full extent, the disease itself—that is, they constitute the true and only form of it which the mind is capable of conceiving.

"§ 272. In no instance is it requisite to employ more than *one simple* medicinal substance at a time.*

"§ 274. As the true physician finds in simple and uncompounded medicines all he can desire—that is to say, the arti-

* "Experiments have been made by some homœopathists in cases where, imagining that one part of the symptoms of a disease required one remedy, and that another remedy was more suitable to the other part, they have given both remedies at the same time, or nearly so; but I earnestly caution all my adherents against such a hazardous practice, which will never be necessary, though, in some instances, it may appear serviceable."

ficial morbific agents whose homœopathic powers completely cure natural diseases—and as it is a wise precept never to attempt with the aid of several powers that which can be effected by a single one, he will never think of administering as a remedy more than one simple medicine at a time. For he knows that if even the pure and specific effects of every medicine upon the healthy state of man had been discovered, we should still remain as ignorant as we were before, as to the manner in which two medicinal substances, mixed together, might oppose and modify each other reciprocally in their effects. He is aware that a single medicine, administered in a disease where the totality of the symptoms is perfectly similar to its own, cures it completely; and he is likewise convinced, even in the least favorable case, where the remedy would not perfectly harmonize with the malady, in regard to the resemblance of the symptoms, that it leads to a knowledge of the curative medicine, since the new symptoms which it excites in such a case confirm those which it formerly created, when tried upon healthy individuals—an advantage that can never be derived where compound medicines are employed."

The accompanying remedies, with their indications, I have gathered from the following sources: Raue's Record, 1870–1–2–3–4–5; Raue's Pathology; American Institute Transactions, 1877; H. N. Guernsey's Obstetrics; Hartmann; Lilienthal; and some journals, etc.

In addition to the remedies mentioned I would recommend the studying of such remedies as apis, bufo, crotalus, diadema, elaps, lachesis, etc. The above remedies, or those below, may not prove curative to a given case. In this event, seek a medicine which most nearly corresponds to the presenting symptoms.

Aconitum n.—After a fright, and the child remains unnaturally timid; unusual fatigue may have been the cause, or it may have resulted from exposure to a very dry, cold atmosphere; much trembling of the extremities.

Actæa racemosa.—Has yielded very satisfactory results in cases having a rheumatic diathesis; those suffering from uterine irritation in cases resulting from physical causes. Nervous tremors, besides twitching, jerking, twisting motions,

usually confined to the left side; the motions are constant; often attended with pains of a rheumatic or neuralgic character. Depression of spirits and insomnia. Frequent alternations of heat and cold in different parts of the body. Great difficulty in swallowing. **Worse**: when following rheumatic fever; during menstrual period; after suppression of the menses. **Better**: quiet during sleep.

Agaricus musc.—True cerebral chorea; idiotic expression of face. Spasmodic motions range from simple and involuntary motions and jerks (slight twitchings here and there) of different muscles, to a dancing-like turning of the whole body; or attack cross-wise,* an upper right and lower left extremity, or *vice versa;* convulsive condition of the muscles of head and neck, constantly; extreme mobility of the lower limbs, and the body generally. Frequent nictitation of the eyelids; redness of the inner canthus of the eyes; flow of tears from eyes. Sensitiveness of the lumbar vertebræ; spinal column sensitive to pressure, or to a hot sponge; body convulsed, as if a galvanic battery were applied to the spine. Ravenous appetite, but difficulty of swallowing; cervical glands swollen; inarticulate speech. Itching and burning all over the body, itching spots on the skin, like chilblains. Great weight in head. Weakness and coldness of limbs; unsteady walk; trembling of parts, or all over; joints feel as if dislocated. Emaciation. **Worse**: during approach of a thunder storm; while awake. **Better**: while asleep—perfect freedom from all involuntary motions. (Agaricus cured a case of long standing, in an old man, characterized as follows: "the twitchings of the arms ceased when he used them in his work of shoemaking." Spots like chilblains, no motions while asleep, etc. Hughes.)

Arnica m.—When caused by external injury. Head very hot, rest of the body cool.

Asafœtida.—Where an irritation of the abdominal nerves by gastric crudities, worms or other causes, may have led to chorea; sometimes abdominal pulsation, with twitching of single muscles, or convulsive motions of the same. Constant change of mind; restlessness; easily confused. (Hartmann.)

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*See *Stramonium.*

Asterias rub.—Trembling jactitation of arms and legs; unable to feed herself, or to walk; frequent, clear, profuse urine; after fright and mental depression.

Belladonna.—Motions of the body are generally backward, sometimes quite extreme; constantly changing emprosthotonos to opisthotonos; boring the head into the pillow; numbness of the fingers; grinding of the teeth; moaning. Soreness or tenderness of the last lumbar and first dorsal vertebræ; sore and inflamed throat. After fright, or mental excitement, especially when the flexors are affected and the paroxysms are preceded by numb feeling in muscles, or by a sensation as if a mouse ran over the extremities. Dull, heavy, drowsy, or stupid; injected eyeballs with flushed face usually accompany the other symptoms. Tongue partially paralyzed; difficulty of articulation. Epidemic chorea. Right side more particularly affected.

Calabar bean. — Chorea of the right side; tongue feels as if swollen and paralyzed.

Calcarea carb.—In leucophlegmatic children; profuse perspiration of the head. Feet feel as if cold and damp stockings were on; great weariness; falls down easily; sometimes only twitching of the muscles, and at times falling down. During second dentition; from fright; exceedingly headstrong; worm symptoms; scrofulous habit. Produced by onanism.

Caulophyllum.— In young girls with menstrual irregularities.

Causticum.—Not exempt at night; distortion, twisting, and jerking of the limbs preventing sleep; movements particularly on the right side, with distortion of eyes; upper eyelids drop—"can't keep them up, they feel so heavy." Paralysis of the tongue and the right side of the face, or whole body. After suppressed eruptions on the head. Constipation. **Worse**: in open air; in the evening; involuntary urination on coughing. (The child would lie down on her stomach, insert one of her knees into the hollow of the other, and, drawing her feet upwards upon the buttocks, would commence to jerk forward and backward, simulating the movements during coitus; meantime her facial muscles became contorted, like

risus sardonicus. Exhaustion after the attack, but during the intervals she showed no particular symptoms; her spells were worst in the mornings. (Wm. Gross.)

Chelidonium. — Sad and troubled without cause; anxiety; palpitations; loss of appetite with vertigo and confusion of head; paralytic weakness in left thigh and knee when stooping.

China.—From great loss of arterial blood, or loss of animal fluids from any cause, or from masturbation; nervous, very sensitive to external impressions.

Cicuta vir.—Twisting and distortion of the limbs, twisting the child into the most curious and sometimes frightful contortions, sometimes accompanied by screams; sudden rigidity, with jerking of the limbs.

Cimicifuga.—See *Actæa rac.*

Cina.—The movements, often commencing with a shriek, extend to the tongue, œsophagus, and larynx, causing a clucking from the throat to the stomach, similar to that caused by water when poured out of a bottle. Distortions, continuing even through the night, are attended with frontal headache; eyes staring, with enlarged pupils; dark rings around the eyes; itching of, and picking at, the nose; pale, earthy, yellowish face. Ravenous appetite; pain around the umbilicus (colic); hard stools; emaciation—indications of helminthiasis. Urine turbid; clear, or turns milky on cooling. Pulse normal; clean, red tongue. Onanism. Child is exceedingly peevish, irritable, and bad tempered — strikes at people; "is too outrageously cross for anything;" loses all playfulness and has no delight in anything. **Worse:** chorea frequently occurs after dinner; in the evening; at night; paroxysms easily reproduced by contact, or by pressing on the parts previously affected.

Cocculus ind.—Right arm and right leg principally affected; face puffed, somewhat bluish; hands look as if frozen. Legs become more and more useless; paralytic symptoms. **Worse:** for a while after eating, drinking, sleeping or talking. **Better:** quiet during sleep.

Crocus sat. — Jerking in the muscles; spasmodic contrac-

tions of single sets of muscles. Jumping, dancing, laughing, whistling; very affectionate, wants to kiss everybody; changeable disposition, with sudden alternations of excessive happiness, affection, tenderness and *rage*. Congestion of the head with epistaxis of dark and stringy blood; suppressed menses. **Worse**: every evening. **Better**: from profuse epistaxis.

Cuprum acet. or met.—Periodical chorea; irregular movements commencing in the fingers or toes, or in one arm, and spreading all over the body; twitchings often confined to one side; most terrible contortions and awkward movements, accompanied by laughter, grimaces, exaltation and ecstasies; melancholy and dread of society. Attacks are often painful; cramps in the calves. Inability to speak, or only imperfectly; sudden piercing cries; distortion of the mouth, and of the eyes; at times risus sardonicus. **Worse**: after fright, from motion. **Better**: when lying down.

Hyoscyamus.—Resultant from or consequent upon long and debilitating diseases; after typhus. Every muscle of the body twitches, and is thrown about, from the eyes, eyelids and face, to the toes; head seems to fall from side to side; throwing about of the arms; misses what he reaches for; tottering gait. Great agitation and loquacity; smiling countenance and seems very silly; easily excited to laughter, and laughs at everything—sometimes immoderately; very talkative, or loss of speech. Does not want to be clothed or covered. Threatens to, and does, result in idiocy.

Ignatia.—Emotional chorea, especially after fright, grief, or other mental excitement, with sighing and sobbing. Vacillating gait; liability to stumble and fall over small objects; trembling and twitching of various muscles: precipitancy of volition; patient expresses anxiety in his movements. **Worse**: after eating, especially after dinner; after deep grief. **Better**: symptoms abate while lying on the back.

Iodium.—Abdominal reflex chorea; the stomach, liver, pancreas, abdominal glands, being at fault. Uneasiness in the limbs with nervousness, and tremor from the region of the stomach to the periphery; trembling of the extremities, hands, fingers, and eyelids; vacillating, unsteady gait; inability to move

the hand to the mouth in a straight line; spasms are violent in the back and feet, with convulsive twitchings of the feet and arms; subsultus tendinum; pain on moving the body; hurried, small, wiry pulse; during rest the parts can easily be held still; sadness and lowness of spirits, particularly during digestion.

Kali brom.—Acts like a crazy person; enfeebling of mental power; trembling of the hands; gait unsteady, irregular staggering, as if drunk. Eruption on lower extremities, generally on calves of legs, spotted yellow, indurated base, thick yellow scabs. (Allen's Encyclopædia.)

Laurocerasus.—Emotional chorea; after fright; motions seem violent and destructive; fearful contortions, and jactitations when awake; can neither stand, sit, or lie down, owing to the incessant motion; clonic spasms of all the limbs, with paralytic weakness; idiotic expression of the face; speech indistinct, angry at not being understood; tears the clothing; strikes at everything; unusual appetite; spasmodic deglutition; sensation of constriction in the throat when swallowing; gasping for breath; cold, clammy feet up to the knees; wasting away; restless sleep.

Lilium tigr.—Convulsive contractions of almost all the muscles of the body, and a feeling as if she would be crazy if she did not hold tightly upon herself.

Lycopodium.—Red sand in the urine or the urine leaves a red stain; very feverish and fretful, particularly waking from sleep; trembling and jerking of the extremities.

Mercurius.—When the convulsions denote the development of meningitis, which sometimes terminates the disease. (*Hahn. Month.*, March, 1878, p 510.)

Mygale.—(This remedy is regarded by many as a specific for chorea, whether in children or adults, in acute or chronic cases.) Constant jerking of head to right side, occasionally drops head suddenly on shoulder; sometimes twists head around to right shoulder; twitching of muscles of back and arms; mouth and eyes open and shut in rapid succession; twitching of facial muscles and upper extremities; convulsive movements of the shoulders; hands, also lower extremities, in

constant motion; feet in constant motion while sitting; in attempting to control the involuntary motions he loses his breath until a deep inspiration is taken; unable to dress without assistance; pain in knees when walking; drags the legs when walking; putting out of the tongue with difficulty; frontal headache; vertigo; grating of the teeth at night. **Worse:** in the morning.

Natrum mur.—Chronic cases after fright or suppression of eruptions on the face; paroxysms of jumping high up, regardless of obstructions, and without taking notice of the things about him, thus hurting himself considerably; or mere jerkings of the right side and the head. **Worse:** during full moon.

Nux vomica.—Chorea, spinal, with sensation of numbness in the affected muscles; crawling sensation in the parts attacked; unsteady gait, feet drag; movements renewed by the least touch, but relieved by firm, steady pressure. Poor appetite; constipation; despondency. **Worse:** in early morning hours; from allopathic drugging; after very high living; from being touched. **Better:** firm pressure. (Cocculus follows well where paralysis remains.)

Opium.—Emotional chorea; twitchings from emotions, fright, anger, etc.; twitching and trembling of the head, arms and hands; the arms are thrown out at right angles with the body, with spasmodic jerkings of the flexors; convulsive movements of one or the other arm to and fro; left arm trembles in paroxysms; twitchings continue during sleep. Constipation, round black balls.

Phosphorus.—Walk like one paralytic, without noticing it; twitching of the limbs. Great exhaustion, and very weak; during rapid growth, tall and rather slender. In general, during the period the body is growing; during second dentition; after calcarea carb.

Psorinum.—In some cases requiring an anti-psoric; especially where sulphur seems indicated but fails to act. The body has a foul odor, even after a bath.

Pulsatilla.—Chorea caused by amenorrhœa or dysmenorrhœa.

Rhododendron.—Paroxysmal chorea; left arm and leg; face. **Worse:** on approach of a storm.

Rhus tox.—Chorea caused by a cold bath, getting drenched by a sudden shower; after repression of measles; twitching in the extremities and muscles; unsteadiness and vacillation of the extremities when attempting to stand or walk.

Scutellaria.—Hysteric chorea; during the day, twitching and tremulousness of all the muscles. At night, restlessness with frightful dreams.

Secale.—Spasmodic twitchings, beginning in the muscles of the face (cuprum begins in the fingers and toes) and spreading over the whole body, sometimes increasing to jumping and dancing; distortions of either a frightful or ludicrous character; spasms attack muscles of the chest and the diaphragm, causing loss of breath; spasm worst when affecting the abdominal muscles, and is always painful; convulsive starts with the fingers spread out.

Sepia.—Convulsive motions of the head and limbs; when talking (which is only a stammering), jerking of facial muscles; general muscular agitation; desire to constantly change position and place. Ring-worm-like eruptions on the skin every spring. Uterine chorea with menstrual irregularities. **Better:** after menses and after a thunder storm.

Silicea.—In some cases where an anti-psoric is required. Foot-sweat of disagreeable odor.

Sticta pulm.—Chorea complicated with hysteria; when the disease seems mostly in the feet, or the movements are confined to the lower extremities; cannot keep the feet and legs to the ground, as they jump and dance about unless held fast. Sensation as though the legs were floating in the air, while lying down, as light as feathers. **Worse:** in the evening.

Stramonium.—Mania saltatoria; movements are characterized by their violence, and by affecting the parts of the body crosswise;* for instance, left arm and right leg—the corresponding members being unaffected; or the muscles of the head and neck are violently agitated; or isolated groups of muscles; or the spasms may affect the whole body, producing the most grotesque leaps, motions and gestures; rotates her arms and

* See *Agaricus.*

hands; furious motions; clasps the hands over the head; puts hands to the genitals. Full of fears; strange and inconsistent fancies; shy; weeps and laughs alternately; inclination to pray and beseech; loss of memory, and of speech; stammering speech; frightful visions; laughter, lamentations, singing, desire to escape. Always moves about very rapidly, runs as fast as possible; though the gait is vacillating, moves the limbs with ease; limbs seem elongated so she imagines she touches the floor though it is half a foot off. Attacks are preceded by formication in the limbs and a melancholy mood; diplopia. **Worse:** at night; in a dark place or dark room; during the equinoxes; after fright or care. Threatens to or does result in idiocy. (In chorea, chief remedy. C. Neidhard, M.D. *Amer. Jour. Hom. Mat. Med.*, vol. ii, p. 207–8.)

Sulphur.—In chronic cases, particularly after suppressed eruptions; or if the skin is full of eruptions, itching much worse on warmth; frequent, spasmodic jerking of the whole body; tremor of the hands; unsteady walk. Peevish, irritable, obstinate; faint and hungry spells at 10 A. M.; soles of feet burn so at night that must press them against something cool.

Sumbul.—Constant jerking of the head and limbs, with protrusion of the tongue. Happy disposition, with continued smiling, idiotic expression; fear of becoming insane. Constipation; voracious appetite; vomiting of food.

Tarentula.—Chorea major, with necessity for continual motion; is in continual motion; trembling of the whole body; all the limbs are agitated; the movements are very irregular and violent, sometimes cannot speak, swallow, sit, stand, or walk, but must lie down constantly; motions especially affect right arm and left leg; nocturnal chorea, contortions not ceasing even at night; sometimes only right side affected; can run better than walk. Vertigo and fainting; oppression in cardiac region; præcordial anxiety and fear of impending death; contraction and painful rigidity of some muscles. **Better:** from diversion, especially music: spasms subside on hearing a hornpipe; feels best in bed. **Worse:** from pressure or touch. The symptoms are alternating, and periodic—occuring daily, every third day, monthly, yearly. (Chorea,

chronic or recent, intermittent forms, febrile, as well as nervous or convulsive, in children or adults, with or without rheumatic complaints — so many cases have been cured by tarentula as almost to entitle it to be considered a specific in this affection. Trans. World's Hom. Con., vol. i, page 331–333.)

Thuja—The following case is reported: "Worse at night and in the morning; craving appetite; hair dry; soreness of the corners of the mouth; very ill-humored and obstinate; laughs a great deal without cause." (Raue's Record, 1874, p. 262. Also, Penn'a State Trans., 1880, p. 213, S. R. Rittenhouse, M.D.)

Veratrum vir.—Most violent and general muscular movements and distortions, unaffected by sleep; champing or chewing of teeth during sleep; difficult deglutition or inability to swallow; intense sexual excitement; palpitation of the heart; sleeplessness; frothing at the mouth; a little froth constantly at the lips. ("We have no more satisfactory remedy for chorea than verat. vir." W. S. Burt, M.D. *U. S. Med. and Surg. Jour.*, vol. vii, p. 278.)

Viscum alb.—Is a popular remedy in England, given as a tea; inclines to be violent; spectral illusions; insensibility; giddiness; from fright. (*Hahn. Month.*, December, 1874.)

Zincum.—Chronic chorea; twitching in various muscles; the whole body jerks during sleep; starting and rolling from side to side on waking; cries out as if frightened; feet fidgety and constantly moved while in bed; chorea, much affecting the general health, accompanied by despondency. **Worse:** after drinking wine; after dinner; towards evening; during rest. **Better:** from exercise.

Zincum sulph.—Her whole trunk, her facial muscles, and all her limbs kept a continual dancing movement, so that she was unable to eat, walk, or lie. (T. C. Williams, M.D., Penna. State Trans., 1880.)

A somewhat convenient (for treatment) division of chorea is found in Raue's Record, 1870, condensed from a paper by Dr. J. Lawrence Newton, published in *Month. Hom. Rev.*, vol. xiii, p. 539. The above author "divides chorea into five classes. 1. The True Cerebral. 2. Spinal. 3. Uterine. 4. Intestinal.

5. Rheumatic. True cerebral chorea is attended with clonic spasms only when the patient is awake—they cease during sleep. Most curable form. Best remedy agar. See page 247. Bell. where hyperæmia exists. Hyos. resulting from long continued or debilitating illness, etc. 2. Spinal chorea.—spasms do not cease during sleep; pain on pressure over last cervical vertebra. Nux v., ign., cocc., etc. 3. Uterine chorea may be subdivided into three classes; (1). Those attending the establishment of the menstrual function. Caul. (2). Those associated with menstrual irregularities. Croc., secale, sepia. (3). Chorea in pregnancy. Would suggest bell., hyos., stram., preceded by verat. vir. 4. Intestinal chorea, when due to dental irritation—bell., calc.; when due to worms, constipation, etc., cina followed by nux v. 5. Rheumatic chorea, actæa or potass. iod."

J. C. Guernsey, M.D.

THE TREATMENT OF DIPHTHERITIC CROUP.

BY THE ALLEGHENY COUNTY SOCIETY.*

This subject has been chosen by the Society in order to elicit the ideas of the physicians in the treatment of this very fatal disease, and as there is nothing new in the pathology of the disease, it has been thought best to leave out that branch of the subject and devote the paper to treatment.

By the term diphtheritic croup is understood that disease in which the diphtheritic membrane extends from the fauces into the larynx, trachea or bronchii.

It is not certain in what proportion of cases of diphtheria this complication may be anticipated, nor whether there can be any definite or constant relation between the character and amount of the exudation in the fauces and its extension to the larynx. The frequency of its occurrence varies in different epidemics, the proportion varying from one or two per cent. to as high as fifty per cent. It is a more frequent complication and is more fatal among children than among adults.

* This paper was prepared by a committee consisting of Drs. H. H. Hofmann, L. H. Willard, C. F. Bingaman, S. F. Shannon, T. J. Putnam.

There are very few cases free from the chances of this complication; it is the chief cause of anxiety in the mild variety, and is not unfrequently met with as the cause of death in the most malignant forms.

Predisposing Causes.—It is most frequent between the first and fifth years of a child's life. Sex and constitution seem to have no decided influence upon the frequency of the disease. It occurs oftener during the months of November, December and January, although common from October to March. Secondary attacks are rare.

Symptoms.—The commencement of the disease is marked by hoarseness and a hoarse croupal cough, which may continue unnoticed for several days before a physician is sent for. The hoarseness and cough are generally worse during the night and better in the morning. At first the fever is slight, the appetite ordinarily unimpaired, thirst is slightly increased, and the child, though inclined to be dull, at times brightens up. In other cases the disease rapidly becomes severe. The first noticeable symptom is the change in the voice. This is a hoarseness like that attendant upon an ordinary cold. The voice becomes more and more hoarse, until at length it is a mere whisper. The cough is peculiar. At first it is a slightly hoarse one, then later hoarse and hollow, and still later it is short and smothered. As the disease progresses the cough is accompanied by stridulous respiration, during which a hoarse, rough, hissing or crowing sound is produced, caused by the rush of air through the constricted larynx. At first this sound is heard only during forced inspirations; later it is noticed in the respiratory movements during crying, and as the larynx becomes more and more filled with the exudation, it is heard both during inspiration and expiration.

Respiration at first is natural, but as the disease progresses it becomes more frequent, varying from 28 to 48 respirations per minute. At first easy and natural, it becomes during the disease a frightful dyspnœa. This dyspnœa may be constant or vary from time to time. When these attacks occur the child is in great agony and tosses about in order to get air; the face changes color, becoming red, blue, livid, and finally so pale that death seems imminent.

Early in the disease there is little or no expectoration, but later, pieces of the membrane are frequently thrown off.

Death may occur during a paroxysm of dyspnœa, or the paroxysms may subside and be followed by periods of comparative ease. In favorable cases the paroxysms recur at lengthening intervals and finally disappear; the cough becomes softer, fragments of membrane are dislodged and discharged, the voice returns and the capillary circulation is reestablished.

Duration.—The duration of the disease is from three to fifteen days.

Diagnosis.—This disease may be confounded with true croup, with false croup, or with laryngismus stridulus.

From the first it may be differentiated by the difference in the cough; that of diphtheritic croup having a less sharp and sonorous clang to it. The voice is more husky and the antecedent and concomitant symptoms are different. The appearance in the fauces, the dysphagia and the sudden change from the asthenic character of the attendant symptoms to the general and arterial excitement is striking. A strong diagnostic point is the peculiar penetrating odor from the mouth in diphtheritic croup.

From false croup, it differs in that that disease is usually of a mild catarrhal form. The fauces are natural or only slightly inflamed. After the paroxysm the child seems well; the fever is slight or disappears; the voice is only slightly hoarse, not whispering. The paroxysm, when it returns, is less severe, and the cough becomes loose and catarrhal. It lasts a shorter time and is not usually fatal.

From laryngismus stridulus it may be diagnosed in that in the latter disease the paroxysms occur irregularly, night or day, and that they are much more frequent. The paroxysms last only a short time, only a few seconds. There is no cough. Also by the occurrence of tonic muscular spasms in laryngismus stridulus.

Prognosis.—The prognosis is unfavorable, even under the very best treatment. Different authors place the percentage of deaths from this disease at various proportions. Ziemssen places it as high as 95 per cent.

Secondary attacks render the prognosis exceedingly unfavorable.

Clinical Cases.—Case 1.—E. H., æt. 3 years. Was called in afternoon, child had been sick four days. Diphtheria was not suspected. Upon examination found the throat, tonsils and uvula covered with exudation. There was a watery discharge from the nose and mouth. Gave nitric ac.^{3d} every hour. At 10 A.M. next day there were symptoms of croup with great dyspnœa. Blue face, struggling to get breath. Gave kali bi.^{6th} every half hour, and inhalations of cider vinegar, with no avail, as the patient died.

Case 2.—E. D., æt. 3 years. Was sick with diphtheria only six hours when a croupy cough showed itself. Gave hepar^{4th} and kali bi.^{3d} with no effect, but as the patient was growing worse, I operated within twelve hours after the croup had began. Died of exhaustion without suffering. The membrane had extended below the trachea. Never had croup.

Case 3.—K. M., æt. 6 years. Fair complexion. Her sister had died some two weeks previously with diphtheria. On examination found the throat covered with a grayish exudation; tonsils and uvula also affected. Salivary secretion excessive. No appetite. Temp. 101½°. Pulse 108. Gave merc. biniod. On the second day no improvement. The temperature was lower. Continued the remedy and gave as diet, beef tea and whisky. On the third day the tonsils looked better, part of the membrane having disappeared. Same remedy. On the fourth day the membrane was rapidly disappearing, but on the afternoon of the fifth day I was sent for in a hurry. Found the throat cleared of the membrane, but there was a croupy cough, with the characteristic odor. Hepar was now given, and under this remedy she seemed to improve for two days. In addition a tent was made above her head, and steam from a tea-kettle was introduced so that she breathed a moist atmosphere. The same thing had been done two years before when she had the membranous croup. After three days kali bi. was given instead of hepar on account of the cough, and the long, stringy expectoration. Some improvement was made under this remedy. The appetite became moderately good, and we had

strong hopes for her recovery, but on the eleventh day of the croup she vomited a quantity of tenacious mucus, and had a suffocative attack during the night which was more severe than any preceding one. The next day although her croupy symptoms had improved, the lungs showed signs of engorgement with the accompanying symptoms, and in spite of the best care and attention she died exhausted on the forty-second day of the sickness. Phosphorus, ant. tart., lach., chlor., cup. met., kali bi., hepar and spongia were the remedies used, and we felt confident of her recovery until the lungs became affected. This was a case which lasted longer than any other it has been my misfortune to treat.

Case 4.—E. D., æt. 4 years. Was called to see this case on account of croup. The child had been sick for ten days. Had no appetite, was very restless, had a croupy cough, and seemed to be dying from exhaustion. Upon examining the throat I found both the tonsils and the uvula covered with diphtheritic membrane. Two holes had been eaten through the arch of the palate. The child died two hours after I saw it. The parents were poor, and had no idea the child's throat was sore. It had evidently been sick the ten days, and the case had progressed steadily to death.

Case 5.—E. S., æt. 5 years. Had been sick eleven days. Was quite bad when first affected. The mother stated she had had sore throat. She treated the child with warm tea. It became better, but on the eleventh day in the afternoon it became worse. I found on examination a small patch of membrane on right tonsil. The left tonsil was ulcerated and sore. What alarmed the mother was the croupy cough and drowsiness. Temperature, 100°; pulse, 110. The breath was offensive. Gave hepar sulph.^{4th} every hour. Slight improvement during afternoon but worse at night, having suffocative attacks. Spongia was now given every half hour. It seemed to relieve the paroxysms. The spongia was given until morning, when the hoarse voice and the restlessness made me again give hepar sulph. The appetite was better and the child became cheerful. The improvement continued until 1 o'clock P. M. on the second day of my attendance. At that time a severe paroxysm took place, and in two hours she died.

Case 6.—Bessie G., æt. 4 years. Fair complexion. Had a slight attack of diphtheria and was recovering nicely, but on the fourth day was summoned hastily on account of a croupy cough. I examined the throat by placing the spatula far back on the tongue. She made an effort to vomit, but keeping the spatula in position, the epiglottis could be plainly seen covered on the apex and sides with membrane. Breathing was labored; she could not lie down. The cough was hard, the expectoration consisting of long tenacious mucus. She was very drowsy. Kali bi.[3d] was given in water, and at night, when the paroxysms of suffocation came on, steam by means of boiling water was given. This seemed to relieve. She improved under the remedy, and on the sixth day of the croup was convalescing, and soon completely recovered under kali bi. and steam from water. Her diet during the croup was soft boiled eggs, beef tea and milk. The appetite was moderately good except on the first day of croup.

Case 7.—W. K., æt. 5 years. Was called to see the brother of this lad who had diphtheria. The mother called my attention to this child who had a croupy cough; seemed restless and drowsy. The cough was metallic. Expectorated some tenacious mucus, very little in quantity. Upon examination found a small patch of membrane on left tonsil. This, with the offensive breath, made me conclude it was a case of diphtheritic croup. The child had spasmodic croup the previous winter. Gave kali bi. every hour. The same night was called to see the child on account of a suffocative spell. He had great difficulty in getting his breath. Spongia[2d] was now given which relieved. Vinegar inhalations were also used whenever he had a spell of hard breathing. The child was sick so as to need attention for two weeks. Kali bi. and spongia were the only remedies used, and vinegar inhalations, night or day, when the severe attacks of breathing came on. The second day of treatment his appetite was better, and continued so. His sleep was every night more or less disturbed for ten days, after which the signs of croup left, but he had a hoarse voice for six months.

Case 8.—Willie P., æt. 6 years. Diphtheria had been in

this family two weeks previous. I was called to see this boy who had croup the previous night, which had continued through the day. On examination could find no membrane in the throat. The child was drowsy. He would frequently cough the characteristic croupy cough. The breath was very offensive. Pulse 100; temp. 101°. He had no appetite. Tongue coated. He had a very bad suffocative spell during the night. Gave hepar during the day, and spongia during the attacks at night or day, should they appear. He did not seem to improve for two days. Kali bi. was substituted for hepar. The cough had at times been somewhat loose. No advance seemed to be made, and he was rapidly becoming weak and emaciated. After giving the kali bi. he seemed to improve so that on the fourth day his appetite was better. The nights, however, were bad, and continued so for seven days; but after this no more attacks were reported. He continued to rapidly improve, and on the fourteenth day was discharged. In this case there was no direct history of diphtheria, but the bad breath and the emaciation lead me to believe it was diphtheritic croup.

Case 9.—Miss M., æt. 19 years. On being called to this case I found she had been sick with sore throat for ten days. She was a sewing-girl and was boarding, and receiving the scant attention unfortunately paid to those in her situation. Found both tonsils affected, also the uvula. There was great difficulty in swallowing. Great anguish. Would sleep a few minutes, then awaken in affright. No appetite. Gave lach.^{6th} every hour. No improvement by evening. She now had a croupy cough and would expectorate mucus and blood. Phos. was now given with no relief. The second day she received kali bi. with no improvement. She died on the night of the third day in great agony.

Case 10.—J. K., æt. 5 years. Was called to see this boy and his baby sister who died three hours after my first visit, of diphtheria. The lad had a patch on the right tonsil, croupy cough, bad odor from mouth, no appetite. Temperature 101°. Pulse 100. Gave kali bi. during the day and spongia at night, the same treatment as Case 7, the only differ-

ence in treatment being that in this case the air in the room was kept saturated with steam from an oil stove placed in the centre of the room. Spongia was used whenever the cough became hoarse or a suffocative attack came on. He was sick three weeks and made a good recovery.

Case 11.—E. S., æt. 3 years. On the third day of sickness I was sent for to see the child, and found an unfavorable case of diphtheria. The tonsils, uvula and posterior part of the throat were affected. I gave an unfavorable prognosis, but under the use of merc. jod. rub., in three days the throat was almost clear of the membrane, when croup set in, and in less than twenty-four hours she died. Kali bi. and phos., with lime inhalations, were used, but were of no avail. She died exhausted, with both lungs affected.

Case 12.—Katie N., æt. 8 years. Child had measles; with the eruption was a croupy cough, subsiding when the eruption was fully developed, but on the sixth day there was sore throat and croupy cough. The throat was covered with membrane, but not very deep. She had a bad odor from the mouth, and was weak and exhausted. There was no appetite. The cough became worse, and although the nature of the trouble was early recognized, she died on the eighth day of her sickness, both lungs being involved. The remedies used were ant. tart., phos., kali bi., lach. and hepar sulph.

Case 13.—W. H., æt. 6 years. A German child. Had been sick two days. Parents thought from a simple cold. Found a small patch of membrane in throat. Was bleeding from the nose. Had a spasm, so they said, during the night. Gave nit. ac. During the evening he had another hæmorrhage and a croupy cough. Gave merc. cyan., then kali bi. Died forty-eight hours after being called. In this case the hæmorrhage was excessive, but the boy evidently died from the croup, as his struggles were for breath, dying in an asphyxiated condition, the apex of one lung affected. Remedies used were merc. cyan., kali bi., phos., lach.

Case 14.—W. B., æt. 3 years. Had been sick four days. Had been attended by another physician. One tonsil was affected. Croup had begun the previous night, with terrible

paroxysms for breath. He was in a prostrated condition. Pulse feeble. Bad odor from mouth. No appetite. Gave lach.; no avail. He died on the evening of the same day I was called.

Case 15.—M. S., æt. 10 years. A child of poor parents. Mother dead and only a younger sister to nurse her, with what help her father, who was a day laborer, could give. First began with the tonsils covered with diptheritic membrane. The tonsils were enlarged and red. Bell. was given every hour. On the second day the fauces were better, and the membrane had ceased to extend. On the third day she had a croupy cough, but the tonsils were very much improved. During the night she had a severe paroxysm of suffocation. She began to perspire and the breathing became better. Kali bi. was now given. On the morning when the croupy cough began she was better, but the expectoration was streaked with blood. They had pasted a newspaper against the wall next to her bed, and she expectorated upon this. The expectoration was slight at first; towards evening more profuse. Phos. was given on this day, and her condition improved so that by the eighth day of her sickness the cough was better, no croup, and but a small quantity of mucus from chest. She was emaciated, had now a good appetite, which at first was wanting. The food was milk and beef tea, which we supplied; no one, as I have said, to do anything scarcely for the poor child. Things looked favorable for her recovery, but on the morning of the ninth day, after being preceded by violent pains in the stomach, a severe diarrhœa set in. The passages were mucus mixed with what appeared to be diphtheritic membrane in small particles, and separate from the other fœcal matter. There was some nausea, no appetite, great thirst. Arsen.[6] was given every half hour. The ninth day was one of great suffering. She got some sleep during the night, but during the next day had a great deal of pain with five stools, the last of which seemed more natural. On the tenth, eleventh and twelfth days the discharges grew less in quantity, and the pain also abated. Her appetite became better; only a small quantity of food was given at a time. Arsen. was continued. With some

slight relapses of pain in the stomach she rapidly improved so that she was discharged on the twenty-first day. This was one of the most distressing cases I have ever attended, and it seemed almost impossible to hope for such a happy result.

Cases 16, 17 and 18.—I have three more fatal cases, the record of which I cannot make out with satisfaction to myself as only the remedies given are noted. The remedies were nit. ac., hepar., kali bi., kaolin., phos., bromine.

Recapitulation.—Of the remedies used kali bi. and spongia seemed to do the most good. At the outset of the croup, hepar sulph. c. would, in some cases, loosen the cough and relieve it to some extent of its metallic sound. This was all hepar ever accomplished for me.

The kali bi. and spongia, as noticed in the three cases cured, were all the remedies used from the onset of croupy symptoms until recovery. In other cases it had seemed to me lach. and some other remedies were more in accord with the symptoms. They were accordingly given, with no good result, but with regret that time had been lost.

Of course it would be difficult to say in those fatal cases, whether by continuing kali bi., the result would have been different. However, acting upon the conclusion arrived at by numerous failures, that in all cases of diphtheritic croup kali bi. and spongia seem to bear a close analogy to the case, I have made it a rule to give the kali bi.$^{3d\ trit.}$ two grains in half a glass of water, a teaspoonful every half hour or hour; giving spongia for the violent attacks of suffocation. The second trituration of spongia is used; a dose being given every five minutes until three doses have been taken, and then it is given every hour.

Vinegar inhalations (cider) were used in preference to those of lime, the latter seeming to tighten the cough instead of loosening it. The steam from the vinegar was used almost continuously so that the air of the room was filled with the acetic vapor to such a degree that a person entering the room would be compelled to cough. This was saturated with steam from water as it was noticed that as soon as the room was cleared of the vapor the croupy cough would become more

metallic in sound. It seems to me that an atmosphere filled with moisture is most suitable for the patient. The manner of keeping up this vapor was by means of a small oil stove in the centre of the room, and a tin vessel placed on top partly filled with water and vinegar. The stove can be so managed that the vapor of the room is entirely at the command of the nurse.

Case 19.—Minnie C., æt. 2 years. Was given kali bi.$^{3 \text{ and } 30}$, and inhalations of lime fumes. Died on third day after croup set in.

Case 20.—Annie C., æt. 3 years. This case had kali bi.^{3} in water, and vinegar inhalations for twenty-four hours, with no improvement. Phos.^{6} was then given for several hours, and, no signs of improvement following, tracheotomy was performed followed by great and immediate relief; but the membrane formed below the point of incision into the trachea, and the child died in about thirty-six hours after the operation. The operation resulted in giving a few hours relief, but really prolonged the child's suffering, and I do not think it died any easier than it would have done without it.

Case 21.—L. L., æt. 5 years. This patient had small-pox, and on the seventh day of the eruption complained of sore throat. Upon examination I found he had diphtheria, which in two days invaded the windpipe. Immediately on detecting the croupy symptoms I put him on kali bi., third trituration, a dry powder every two hours. In forty-eight hours he died. No other remedy was employed.

Case 22.—Robert S., æt. 6 years. Was taken suddenly sick with a severe attack of diphtheria on December 10th, 1877. Was getting along very well on lach. until the 14th, when the symptoms of croup manifesting themselves, he got kali bi.^{3}, a dry powder every hour. On the next morning the croupy cough and breathing were worse, and he got spongia^{30}, a dose every hour. In the evening he was no better, and the remedy was changed to merc. cyan.$^{3d \text{ trit.}}$, a powder every hour. After taking a few doses of this remedy he had a violent coughing spell, with choking and gagging, and he finally expectorated a piece of membrane large enough to encircle the index

finger, and extend from the first to the second joint. He rested easily now and slept. There was a rattling in the larynx during respiration. Prescribed hepar.[30] The next day the breathing became difficult, and on the following day he died.

Case 23.—Louisa R., æt. 3 years. Saw this child for the first time on the evening of December 25th, 1877. The tonsils were immensely swollen and covered by a firm membrane; both parotid glands were swollen, hard and painful. There was a profuse, offensive, excoriating nasal discharge; ptyalism, and finally croup. I prescribed nit. ac.[3] and kali bi.[3] every hour alternately. The following morning she died.

Case 24.—Bertha S., æt. 14 months. After having apparently recovered from a moderately severe attack of diphtheria, croup set in. Kali bi.[3] was given on the morning of June 9th, 1878. Being worse in the evening, bromine[30] was substituted for the kali. She died that night.

Case 25.—Georgie B., æt. 7 years. Taken sick with diphtheria September 15th, 1878. A bad case from the start. For the first two days she had merc. cyan.[6] On the third day on account of the croup, which now showed itself, she was put on spongia[1] in water, a dose every hour. This was continued, and in addition she inhaled lime fumes. On the evening of the fourth day she died.

Case 26.—Nellie P., æt. 5 years. Taken sick with diphtheria September 14th, 1878. Croup developed on the 16th. Prescribed spongia[1] in water, a dose every hour. She died on the 17th.

Case 27.—Mary S., æt. 2 years. March 17th, 1879, was taken sick with diphtheria. Case progressed favorably on merc. cyan. until the 21st inst., when croup was announced. The symptoms corresponding to those of hepar, that remedy was prescribed in the thirtieth trituration. On the following day the croup and breathing being tighter, kali bi.[3] was given. She took the kali for three days, sometimes appearing better and other times worse. Iodine was prescribed on the 24th and continued on the 25th. On the evening of the 25th she died. Lime inhalations were used in this case.

Case 28.—Louisa E., æt. 6 years. Had a mild attack of diphtheria lasting for four days. I was about to pronounce her well, when I detected a faint croupy sound to her cough. Kali bi.[3] was at once prescribed, which she took faithfully for two days, getting worse all the time. Ammon. caust., as strong as she could swallow it, was then given and continued for about twenty-four hours when she died.

Case 29.—Lulu K., æt. 2 years. Was sick three days with diphtheria when croup set in. At the suggestion of Dr. J. H. McClelland, who saw the case in consultation, ars. iod.[3d trit.] was prescribed. This was continued for twenty-four hours, the patient rapidly growing worse, when I changed the prescription to hepar. and nit. ac. She died the following morning.

Case 30.—Katie Z., æt. 2 years. Was called to see this child September 3d, 1880, and found a bad case of diphtheritic croup. Prescribed kali bi.[3] The patient died on the day following.

Case 31.—Anna G., aet. 2 years. Was taken sick with diphtheria September 18th, 1880. On the 23d croup set in. Kali bi.[3] was prescribed. She died on the 24th.

Case 32.—Charles S., aet. 5 years. Was taken sick with diphtheria April 26th, 1881. The case progressed satisfactorily on merc. cyan. until the 29th, when croup was announced. Kali bi.[3] and inhalations of lime fumes were at once prescribed. The croup slowly gained headway, and on May 3d, or the 10th day of sickness, phos.[6] and vinegar fumes were prescribed, which seemed to relieve for a short time, but he again became worse, and died on May 6th, or nine days after the appearance of croup.

Case 33.—Lyda R., æt. 3 years. This patient was nearly gone when I first visited her, having been some days under other treatment. I prescribed kali bi.[3] and vinegar inhalations. The following day she died.

Case 34.—John A., æt. 4 years. This, like the former case, was hopeless, when I was called. My predecessor had used the lime inhalations vigorously with no other effect apparently than that of hastening exhaustion. I ordered them to be

stopped, and gave kali bi.[3]. The next morning he seemed to be better, but towards evening got worse and died during the night.

Case 35.—Jas. T., æt. 3 years. Was taken sick with diphtheria, July 29th, 1882. The case progressed favorably until August 2d, when I was told that every time he awoke from sleep he was croupy, and not at other times. Lach.[6] in water was prescribed. After taking this for twenty-four hours he was croupy all the time. Bromine was now given together with inhalations of the same, later, but he died on the fourth day after the croup appeared.

Case 36.—Justina B., æt. 1 year. Was brought to my office August 8th, 1882, with diphtheritic membrane covering both lips. The membrane rapidly extended over the tongue and the inside of the cheeks to the throat, and thence to the larynx, producing the characteristic croupy cough and breathing, and producing death on the 11th inst. She was sick only four days. Merc. cyan.[6] was the only remedy administered.

Case 37.—Mary E., æt. 7 years. Was taken sick with diphtheria, November 1st, 1880. The case progressed satisfactorily on merc. cyan.[6] until the 3d, when croupy symptoms appearing we at once resorted to the lime inhalations and kali bi.[3], a dry powder every two hours. This treatment was continued steadily for ten days, the cough remaining loose and the expectoration yellow, ropy and profuse. After the inhalation of lime she could always expectorate more freely. She was under treatment fourteen days and recovered.

Case 38.—Alice McC., æt. 6 years. Was taken sick with diphtheria April 4th, 1881. Was getting along very well until the 7th, when croup appeared. Kali bi.[3] and lime inhalations were prescribed. On this treatment she expectorated freely and had but slight obstruction in respiration for four days, when it seemed to lose its power. I then prescribed vinegar fumes for inhalation and iodine[1] a dose every two hours. Not being any better the next day phos.[6] was prescribed and the vinegar continued. This was continued four days, when she was sufficiently recovered to be discharged. She had croup for nine days.

Case 39.—This was a small German boy who had been under the treatment of another physician for a number of days, and growing worse the physician had ceased visiting him. When called I thought the patient was so bad he could not recover, and the parents so poor that they could not pay, and made no record of the case, consequently cannot give name or age of the patient nor the date of illness. But I remember distinctly the treatment which was to continue the lime inhalations ordered by my predecessor, and give a powder of kali bi.[3] every two hours, and at the end of a week I was agreeably surprised by having the little patient well and being paid for attending him.

Cases 40 and 41.—I have also two cases of diphtheritic croup to record where the patients recovered from the croup but subsequently died; one of exhaustion resulting from an attack of cholera infantum supervening during the convalescence from diphtheria. The other case died from paralysis of the heart, but in neither case was there the slightest trace of diphtheria or croup remaining. In the first case the treatment of the croup consisted in kali bi. internally, a dry powder every two hours, and frequent inhalations of lime fumes. In the second case, hepar[30], a dry powder every two hours, removed all croupy symptoms in forty-eight hours.

Recapitulation.—We have here twenty-three cases of diphtheritic croup—eighteen fatal and five recoveries—which include the two who recovered from the croup and died subsequently; or if these are classed with the fatal cases, then we have twenty deaths and three recoveries, but, for the purposes of this paper, I think they should not be included in the list of fatal cases.

Four of the cases which recovered were treated alike, viz: Kali bi.[3], internally, and lime inhalations. One of the four had in addition to this phos.[6] and hot vinegar inhalations. The fifth case had hepar internally and no inhalations.

Of the eighteen fatal cases, thirteen took kali bi.[3] internally; three of these had lime inhalations, two hot vinegar, and one lime and hot vinegar.

Spongia and hepar were used in three fatal cases each.

Bromine, phos., nit. ac. and merc. cyan. were employed in two fatal cases each, and iodine, ammon. caust., lach. and arsen. jod. were employed in one fatal case each.

Tracheotomy was resorted to in one case that proved fatal.

Kali bi.[3] was the remedy from which most was expected, but out of seventeen cases in which it was used almost exclusively thirteen died and but four recovered, and one of these did not get better until phos.[6] was substituted for the kali bi., making, therefore, but three recoveries out of the seventeen cases. But this, poor as it is, is a better showing than is made by any other remedy I have used.

Case 42.—C. K., æt. $2\frac{1}{2}$ years. Had a sister affected with diphtheria, who recovered. He took it next. He had pseudo-membranous patches on both tonsils and on velum palati. These patches disappeared under kali bi., but in a few days he had a croupy cough, dyspnœa, etc. I gave him bromine internally, and ordered inhalations of the fumes of cider vinegar, which was placed upon the stove. This relieved the breathing very markedly for some time, but he sank and died from exhaustion.

Case 43.—Girl, æt. 10 years. Saw her in consultation. Dyspnœa was excessive. Mucous membrane of nose inflamed. Discharge muco-purulent, excoriating the upper lip. Offensive smell from the mouth. The back part of the naso-pharyngeal cavity was covered with pseudo-membrane.

She had received kali bi. and merc. biniod with no benefit, and the case being desperate, I recommended a drop of bromine to be placed in a cup of hot water and the vapor inhaled. Inhalations were preferred as the child could not swallow anything. The breathing became easier, but she sank from exhaustion.

Case 44.—Girl, æt. 4 years. In this case I attribute the cure to the use of lime and iodine. She had been under the care of an old school physician. He had lost her sister from the same disease several days before. When I first saw her she had had croupy symptoms for three or four days. I gave her kali bi. and then merc. biniod, without benefit. In fact, the child was getting worse. I then ordered some

quicklime to be put in a tea-kettle, and hot water to be poured over it. I then added a few drops of the tincture of iodine. The kettle was placed upon the stove, and the steam was conducted under a sheet covering the child's head. This was to be repeated every time the child became worse. She felt better immediately after each inhalation, and eventually recovered.

Cases 45 and 46.—I was called to see a girl of six years. On reaching the house I found the child with all the symptoms of croup, but could get no history of diphtheria. The lime and iodine inhalations were given, and kali bi. internally, but notwithstanding my best efforts the child rapidly sank and the case terminated fatally.

Three or four days after this, I was hurriedly called to see the next youngest child, a boy four years of age. I found some grayish-green deposits on the tonsils. The boy was somewhat drowsy and stupid. Pulse 160, temperature 104½°. I gave him ars. jod. under which he seemed to do extremely well, in fact, so well that I dismissed the case in a few days. He had no patches visible then. Next morning early I was hurriedly called to see him as he had croup. I found, when I got to the house, that he was so far gone in the short time in which he had the croup that I gave an extremely unfavorable prognosis, and informed his mother of the fact. Nevertheless, I ordered the lime and iodine inhalations and gave him kali bi. internally. He died twenty-four hours after. The course of the brother's case makes me certain the sister had diphtheritic croup, although the diphtheria was not diagnosed.

Case 47.—Boy, æt. 4 years. Had a greyish-green patch in the pharynx. Merc. biniod. was given with good effect, and in five or six days the patch had disappeared entirely. The next day, however, I noticed he had quite a little difficulty in breathing. He expectorated long strings of viscid mucus, which had often to be pulled out of his mouth. He was given kali bi. internally and inhalations of lime and iodine. He recovered slowly at first and then more rapidly, and after four or five days he was entirely cured, as far as the croup was concerned. He remained quite hoarse. The discouraging feature

about this case was that after remaining to all appearances well for four weeks, and having been taken out for a walk by his parents, he was suddenly seized with paralysis, which became pretty well marked in a few days. One night he died apparently without cause, as far as could be learned from his parents, but according to their description, it was very likely paralysis of the heart.

Case 48.—Girl, æt. 7 years. In this case the fauces were of a deep bluish red color. She had great dyspnœa, rattling, but no expectoration. The limbs were cold. After other remedies I gave mur. ac. in water, enough to make the water taste slightly sourish. Improvement set in and she slowly recovered, but still remains hoarse, although she is now thirty years old.

Case 49.—Boy, æt. 4 years. Had patches on left tonsil and soon after showed symptoms of croup. Lach. seemed to cover the case completely, but he died in a few days.

Case 50.—E. S., æt. 5 years. Several of the family had diphtheria, and he naturally had his turn also. Croup developed, and after kali bi. and merc. biniod. had been given without benefit, counsel was asked. The consulting physician recommended lach. in trituration. He was given the 7th in water, but the case proved fatal.

Case 51.—C. K., æt. 2 years. Sister had diphtheria, and he took it. He got better of this under kali bi., and the patches disappeared when he showed signs of croup. He was given vinegar inhalations with some relief. Internally kali bi., brom. and lach. The case terminated fatally.

Case 52.—W. G., æt. 5 years. Had scarlatina with diphtheritic symptoms a year before, and completely recovered. This time was taken with a severe attack of diphtheria. The tonsils, uvula and pharynx were completely covered with exudation. This gradually extended into the larynx. Merc. cyan. had then just lately appeared, and being highly praised I gave him that remedy and kept him under it until he died.

Case 53.—W. M., æt. 3 years. Had a diphtheritic patch in the throat which got better under kali bi., but soon after this croupy symptoms set in. He was now given merc. biniod. internally, and inhalations of lime water and iodine. He took

considerable nourishment, especially ice cream. The cough became more loose when he received hepar, and then he slowly progressed to recovery.

Case 54.—Boy æt. 7 years. Had a severe attack of measles. A few days after his recovery from this he took diphtheria. The pseudo-membrane extended down into the larynx and was attended by all the symptoms of croup. The family were only recent converts to homœopathy, and I told the parents it was a very desperate case, and if they wished to change physicians they should do so now. (For it has been my experience that diphtheritic croup following measles is almost invariably fatal.) They did change, and the patient died very soon after.

Case 55.—J. W., æt. 5 years. After an attack of measles, several days after being discharged, his father dropped into my office on his way to work and asked me to go and see the boy some time during the morning, saying that he had some difficulty in breathing. I at once went to see him and found him pulseless, with great anxiety and dyspnœa. There were no patches in his throat, but his breath had the characteristic fetor of diphtheria. I told his mother he would die before noon. He died within two hours. The remedy used was hepar.

Case 56.—F. M., æt. 2½ years. Had diphtheria, followed by croup. He had received kali bi. for the diphtheria. Spongia was now given for the croup and inhalations of lime water with no success. He died soon after.

Case 57.—B. A., æt. 5 years. Was hoarse for about a week but was able to be about. She had a few diphtheritic patches on the tonsils. The appetite was good and the diphtheria did not prevent her from eating heartily. The child was so little indisposed that the parents went away, leaving her in charge of a nurse. The windows were allowed to stand open on a wet autumn day and house cleaning was going on at the time. That night she began to have a hoarse, croupy cough and dyspnœa. I was not sent for until late the next morning, and being out on my rounds they sent for an old school physician, who prescribed chlorate of potassa. I saw her in the afternoon but she was so far gone that there was no hope for her. I gave her spongia. She died that night.

Case 58.—H. L., æt. 5 years. Had scarlatina, followed by diphtheria. The pseudo-membrane gradually extended from the tonsils to the larynx. He had great dyspnœa, and was in a soporific condition. He had received merc. biniod. for the diphtheria. On making my visit the third morning of the croup, I found him pulseless, cold, eyes injected and lips black. I informed his mother that he would die in a few hours, but she insisted that I should prescribe for him. I gave him carbo. veg.[6] The next morning I found a slight pulse, but he was still cold. He now received ars. iod. In about ten hours after that he began to get warm, and then progressed rapidly to recovery, full and complete.

Case 59.—C. B., æt. 3 years. Had diphtheria which got better under kali bi. He was, however, seized with croup, and although kali bi. was continued he grew worse. Tracheotomy was proposed but refused. He died next morning.

Case 60.—A. K., æt. 8 years. Had diphtheritic patches on uvula and tonsils, which, after three or four days, disappeared under kali bi., and he seemed to be on the road to recovery. That night he was seized with croup, with rasping respiration and great dyspnœa. For this he was given merc. biniod. Getting no better he was given iodine, but the case steadily progressed to a fatal termination.

Case 61.—E. G., æt. 4 years. Had an attack of croup very similar to the last case. She received merc. cyan. with the same result.

Case 62.—S. V., æt. 7 years. Had diphtheria. Patches on both tonsils. The deposit disappeared after several days under kali bi. About a week after the first appearance of the pseudo-membrane, croupous symptoms set in. The dyspnœa was great and still increasing. Tracheotomy was proposed and assented to. As soon as the tube was inserted the patient was relieved. Half an hour later she drank a cup of milk, and from this time improved, and she recovered. The tube was left in two weeks.

Case 63.—W. V., æt. 4 years. A brother of the last mentioned patient. A few days after his sister's recovery he was attacked with diphtheria, and in a few days he was croupy.

The case had a bad aspect from the first, and tracheotomy was performed early. Respiration became easier at once, but the patient died on the seventh day after the onset of diphtheria.

Recapitulation.—Cases treated, twenty-two; cases recovered, six; cases died, sixteen. Of this number there were fifteen males and seven females. The oldest was ten years of age, the youngest two years, and the average was about five years. There were two cases that received merc. cyan., and both died.

"	"	three	"	"	merc. biniod. 2 died; 1 rec'd.
"	"	five	"	"	kali bi. 4 died; 1 recovered.
"	"	two	"	"	spongia. 2 died.
"	"	one	"	"	iodine. Died.
"	"	three	"	"	bromine. 3 died.
"	"	one	"	"	mur. ac., and recovered.
"	"	one	"	"	carbo. veg., and recovered.
"	"	one	"	"	hepar, and died.
"	"	three	"	"	lach. 3 died.

Tracheotomy was performed in two cases; one died and one recovered. Inhalations of lime water and iodine alone were used in one case, which recovered.

Case 64.—H., æt. 9 years. Was recovering from a slight attack of diphtheria, when, from exposure to cold, croupy symptoms set in. In this case kali bi.[3] and lach.[30] were used with little or no effect. In the afternoon of the third day I left acetic acid, as recommended by Dr. Hering, ten drops in a tumbler of water, with sugar. In the evening I called with two other physicians prepared to operate. The patient breathing more easily, we decided to defer the operation. The father stated that soon after taking the new medicine he noticed a change. The case improved right along. Gave hepar when the cough became loose. Used inhalations of vinegar.

Case 65.—Baby, æt. 15 months. This was in the same family a short time after the other case. The baby was taken with sore throat and symptoms of croup. Did not detect any membrane in throat, but was convinced I had a similar case to deal with. Kali bi.[3] was the remedy given, with instructions to call at the office for the acid. When he called he reported the case as doing so well that no change was made.

During the night the family went to sleep, and the temperature of the room got lower, and the child grew much worse, and went on getting worse until it died. Used inhalations of vinegar.

Case 66.—Laura, æt. 5 years. Living in the country. Was taken with high fever, headache and sore throat. On the second day there was exudation on both tonsils. On the fourth day a croupy cough appeared, with difficulty of breathing. Croupy symptoms grew worse, until her life was despaired of. Gave kali bi.[3] and merc. jod.[3] until the membrane was loosening when hepar[3] was substituted for merc. jod. Used inhalations of steam and glycerine. Gave beef tea and milk punch very freely. Made a good recovery.

Case 67.—Harry, æt. 4 years. In this case the membrane was coming off from the tonsils when a croupy cough set in. The patient grew worse and died. Kali bi.[3], spongia[3] and hepar[3] were the remedies used. Vinegar inhalations were used.

Case 68.—Baby, æt. 2 years. Was about well of an attack of scarlet fever when, from exposure, a membrane appeared in the throat and with it a croupy cough. Kali bi.[3] and acetic acid were given. The cough became loose and hepar[3] was substituted for the acid. The patient appeared to be doing well when an offensive, watery diarrhœa set in and the baby soon succumbed. Ars. iod. was given when the diarrhœa appeared.

Recapitulation.—Whole number treated, five. Of these, two recovered and three died. Acetic acid was used in two cases, one of which recovered and one died. Kali bi. alone was prescribed in one case which recovered, and in one case that recovered only when acetic acid was substituted for the kali. It was also prescribed in each of the cases that died. Hepar was the remedy prescribed in three cases, one of which recovered. Spongia and lach. were used in one case each, but without any apparent benefit.

Case 69.—Myrtle J., æt. 4 years. Was consulted in my office by the mother of the child for cold, hoarseness, etc. Did not see the child until two days later, when all the symptoms pointed to diphtheritic croup. Treatment from first to last, continuing two weeks, was kali bi.[1x], one-half grain powder every quarter to hours. Cured.

Case 70.—Patrick K., æt. 6 years. For a couple of days was stupid and had no appetite. This was about all that was noticed. On the day I was called the child suddenly became cramped in the abdomen between the umbilicus and pubic bone. This pain would come on so suddenly and severely that the child would spring out of bed as if thrown from a spring trap. The paroxysms would last about half a minute, and during the periods of repose there was severe aching in the back and limbs. Upon examining the mouth I found a diphtheritic condition of the fauces. A croupy cough was developed on the second day of illness, at which time I gave hepar[3] in powders. The next day he was worse, the cough was drier. Kali bi.[1] in powders was prescribed. During the next two days he sank rapidly and died on the fourth day of his illness.

Cases 71 and 72.—Infants. Both were treated almost exclusively with kali bi.[1] in water, about two grains to half a glass of water. Both died in a few days. In all cases I used ice locally and gave it by mouth during the entire treatment.

Recapitulation.—One case cured by kali bi. Another greatly benefited by same remedy, and finally cured by ant. tart. Three cases died.

Case 73.—I was called to see a case one night for the purpose of performing tracheotomy. I found a little girl three years of age suffering from an attack of diphtheritic croup. The child was most exhausted; in fact, so low that I at first declined to operate. As death seemed imminent, I consented to at least make an effort to save the patient. The tube was introduced at 11 P. M. (I was called at 10 P. M.), and the child died at 7 A. M. the next day. I made a post-mortem examination, and found that the diphtheritic membrane extended beyond the extremity of the tube.

General Summary.—Total cases treated, 73; recoveries, 17; deaths, 56; proportion of deaths, $69\frac{9}{14}$ per cent.; age of oldest, 19 years; age of youngest, 1 year; average age, about $4\frac{3}{4}$ years.

The recital of the above cases tells a sad tale. They have been gathered from among the physicians of Allegheny county and very justly give an estimate of success or failure which has attended our treatment. It is very hard to say which remedy

did the most good, for although kali bi. was used more than any other and more recovered under its use, still there have also been more deaths. At the same time, in reviewing these cases one can see that the kali bi. was the most popular remedy, and was more frequently used than any other for the croupous trouble—we think because it was most frequently indicated.

The other remedies, too numerous to mention here, we leave without comment, except to say that while lach. seemed in many cases to be thoroughly indicated, it equally failed. We believe this to be due to the fact that whilst it clearly simulated the physical symptoms, it bore but a slight relation to the pathological and local condition.

Various means were adopted to relieve the distressing spasm. First, tracheotomy. This was tried in one case within twenty-four hours, but failed. It was thought at the time that an early operation would give the best result; it only relieved the suffering, the disease having already involved the lung tissue at this early date. We would, however, from the data collected, recommend that tracheotomy be performed in the earlier stages of the disease, so that a proper oxygenation of blood may be secured and the distressing paroxysm avoided. The operation should be performed as soon as the dyspnœa grows steadily and progressively greater, when there is marked hissing laryngeal stridor, and at each inspiratory effort recession of the base of the thorax; when, in addition, the voice becomes whispering or suppressed, and the cough short, smothered and muffled. We are not to be influenced by the mere period of the disease as measured by time; but whenever the above symptoms occur, the operation is required.

In regard to inhalations, sufficient facts have not been produced whereby we can recommend any one in particular, as several cases are reported cured without any inhalations whatever. In those cases where inhalations were used, vinegar, lime, bromine and iodine were those most popular. There seems to be a difference of opinion in regard to these inhalations. Some who have used them say that the steam from them will dry up the secretions, whilst others claim a different effect, saying that if a lump of lime the size of a fist

be placed in a quart of water, the steam will have the desired effect.

Vinegar inhalations have already been described, and also the manner of administering them. It is claimed that they loosen the croupy cough and lessen the metallic ring, so that the patient can cough up some of the mucus in the larynx.

It has been proposed by some physicians, that, as a moist atmosphere seemed to be most suitable for these cases, steam be used in the room at varying intervals to keep the cough loose, and when the paroxysms come on the vinegar inhalations should be used to relieve them. As to the value of this proposition, we are in doubt. Another suggestion is, that the remedy selected may be vaporized by steam, and this be given by inhalations at intervals of an hour or more, and for from one to five minutes at a time. When not in use the solution to be kept covered, and heated again when used. In this manner bromine was used in one case reported cured.

Whether in the future inhalations as a means of relief and cure will be adopted, must be at present a matter of conjecture, their use at present being only as a means of relief. It may be that if the medicine was given in the manner described, we might form a better plan of treatment. With a disease like this to encounter, and with such a mortality, it certainly is incumbent upon us to use our united efforts, so that we may in the future have a lower mortality.

DIPHTHERITIC CROUP.

BY J. S. BOYD, M.D., NEW SHEFFIELD.

(Presented through the Allegheny County Society.)

Case 1.—A little girl, æt. 5 years, had a slight attack of diphtheria, which was relieved in a few days by the aid of merc. bijod. The parents, thinking her out of danger, permitted her to go out with the rest of the children, and, from the exposure to damp and cold, she had a relapse. A small portion of membrane reappeared on one side of the throat, and

on the second day she became croupy. The paroxysms of dyspnœa gradually became more severe and frequent, and she died on the sixth day. The remedies used were aco., merc. bijod., kali bi. and bromium in different potencies.

Case 2.—A little boy, æt. 3 years, had diphtheria, and on the third day became croupy, and died on the ninth day. The remedies used were merc. bijod., kali bi. and bromium.

Case 3.—A little boy, æt. 4 years, had been sick three days before I was called. When I entered the room he was sitting up whittling at a stick. His throat was covered with membrane, and the anterior surfaces of the tonsils were of a dark purple color. He had a croupy cough but suffered no pain. I prescribed ars. and merc. bijod. He died about ten hours after I left the house.

Case 4.—A little girl in the same family as Case 3, æt. 7 years, had a severe attack of diphtheria. The glands about the sides of her neck were very much swollen, and the throat was lined with membrane and very sensitive. I prescribed merc. cyan.$^{3d\ trit.}$ and dilute alcohol. The next day some membrane came off. The same treatment was continued, and I requested the parents to notify me if she should have any symptoms of croup. On the third morning about 4 o'clock I was summoned. She had a croupy cough and some dyspnœa. I prescribed kali bi., about 1 grain of the crude drug in a half glass of water, to which I also added 2 oz. alcohol; and in another half glass of water put ten drops merc. cyan.θ The dose from each glass was one teaspoonful. These were alternated every hour. If she was asleep, I requested them to wake her for the medicine. When taking from the first glass containing the alcohol, she held it in her throat awhile before swallowing. In the evening I returned, taking with me a trachea tube, chloroform, etc., but finding her no worse, I continued the same medicine. The next morning the cough and dyspnœa were somewhat better, and a gradual improvement continued until the patient was in a state of convalescence.

Case 5.—A little boy, æt. 5 years, had diphtheria three days. The mother had been treating him with alum gargles. He continued getting worse, and when I first saw him he

had a very sore throat and a hoarse, croupy cough. I gave an unfavorable prognosis, but prescribed the same as in Case 4. After two days the croupy cough disappeared. Kali bi. was discontinued and merc. cyan. and alcohol continued. On the seventh day the croupy cough returned. I gave the former prescription again, and continued it until the patient was out of danger.

Case 6.—A little girl, æt. 6 years, had a very severe attack of diphtheria. The second day she became croupy. I prescribed the same as in Case 4. This prescription was continued for two days. The paroxysms of dyspnœa had become so severe and frequent that it seemed as if the child could not long survive. I now discontinued the merc. cyan., and prescribed 10 drops of bell.θ in a half glass of water instead, and continued as before. The paroxysms soon became easier, and a gradual abatement of the suffering continued, and the child made a good recovery.

Case 7.—A little child, æt. 6 months, had been treated for five days by an allopathic physician. He gave it up to die, and said, "No doctor in the world could save it." When I first saw the patient it seemed to be in a dying condition. The child's throat seemed to be very sore and covered with membrane. During the paroxysms of dyspnœa it would almost suffocate; and between the paroxysms would lie motionless, with its eyes half closed. The lips and tips of the fingers, at times, would become purple. I prescribed kali bi. and alcohol and bell., as in Case 6, with the exception that I added more water and alternated every half hour. The next day there was a little improvement, and the paroxysms came at longer intervals. A slow but gradual improvement continued until the child was in a state of convalescence. In this case there was some organic change took place about the epiglottis. The respiration never became normal. Although hearty in every other respect, it still has labored breathing.

From the above cases I concluded: 1st. That although kali bichromicum has a specific relation to morbid conditions of the trachea, it does not cover the entire field in a case of diphtheria. 2d. That in severe cases it could not control the

severe paroxysms, but required the aid of some anti-spasmodic, and hence bell. was chosen. 3d. As the upper part of the trachea is so sensitive that a slight irritation either from hyperæmia, or from a small deposit of membrane about the epiglottis may produce alarming symptoms, keeping the blood in a carbonized condition, and preventing all reaction no matter how well selected the remedy may be, and to meet this material condition requires material portions of the drug.

RHEUMATIC MENINGITIS.

BY C. F. BINGAMAN, M.D., PITTSBURGH.

I was consulted in my office on July 28th, 1882, by a gentleman 37 years of age, a book-keeper by occupation, who had just recovered from an acute attack of rheumatism. He had been treated with sweatings, potassium iodide, Dover's powders, etc., and was discharged apparently convalescent, except for the accompanying weakness. When first seen he complained of a feeling of stiffness in his arms and legs and some pain. Bryonia[3x] was given. On the 30th I was sent for to see him at his house. He complained of pain in his hands, knees and feet—all of which were somewhat swollen; temp. 100°, pulse 88; tongue coated white, and no desire to eat. He told me he had been caught in a rain after leaving my office, and his clothing had gotten slightly damp. I left him rhus tox.[3x] On the 31st he was about the same; but on August 1st he had some oppression in breathing, but no pain about the chest; temp. 102°, pulse 100. Gave aconite[1x]. In the evening he seemed better of the oppression. On August 2d the oppression had gone; the other conditions being about the same, I gave rhus tox.[3x] and aconite[1x] in alternation. On August 3d the temperature and pulse were about the same, but the pain and swelling of the hands and feet were less. Continued the same remedies. On August 4th he was more comfortable, and the pain and swelling less. The same prescription was continued. On August 5th he was feeling better, and had rested well during the night. On August 6th he complained of rather more pain in the hands and feet; temp. 103°, pulse 110; more thirst; tongue more coated. Bryonia[3x] was given. In the evening

when I saw him he was working nervously with his hands; catching at the bed clothing or folding his handkerchief. He answered my questions intelligently. Said he had no pain except in his hands and feet. His face was flushed, eyes red, pupils dilated. I gave him bell.[3x] Early in the morning of the 7th the temperature was 105°, pulse 130. He was still picking at the bed clothing. He was conscious, however, and would answer any question asked. I gave verat vir.[1x] every hour.

Dr. Willard was called in consultation, and when we met in the afternoon the family stated that the patient had just had a nervous spasm, but he was lying quietly when we saw him; his pupils dilated and insensible to light; temperature 108.4°, pulse too rapid and unsteady to be counted. While sitting by him he had another nervous chill or trembling; kicking with both feet forcibly against the foot of the bed, using one foot rather more than the other. At this time zincum was given. At the end of an hour the temperature was 109.2°. I shook down the mercury and replaced the thermometer, leaving it in place until a few minutes before death, when it registered 110°. During this high range of temperature, the respirations were 60 to the minute, and grew less frequent as death came on. The temporal artery, which I was watching on account of its rapid pulsation, stopped as suddenly as if compressed. The undertaker remarked to me that he had washed the body three hours after death, and that he never felt one so hot. The thermometer was one of Hicks' make, and was guaranteed.

In most cases of rheumatic meningitis there is an entire metastasis; but in this case the swelling and pain had not left the hands and feet. The absence of pain and vomiting is peculiar to this variety of meningitis. Reynolds, in speaking of this disease, says that "recovery is rare — sometimes terminating in insanity." According to Vilga, "thirty out of thirty-nine cases terminated fatally."

The allopathic physician who attended the patient during the early part of his sickness states that there was considerable shifting of the pains, but this was not the case while he was under my charge.

On motion of Dr. DUDLEY, the subjects of diphtheria, diphtheritic croup and membranous croup were first taken up for discussion.

Dr. WILLARD: As a member of the committee by whom this paper was prepared, I would state that the object sought is to bring out the opinion of the members in regard to the recommendations contained in the appendix, and the method of treatment.

Dr. DINSMORE: There is no disease whose results I dread so much as diphtheritic croup. I only remember three cases in three years. The case that appeared to be the worst, recovered under the use of kali bi.[12] and inhalations of pure bromine.

In the second case, Dr. McClelland performed tracheotomy, but the child died in eighteen hours. In the third case Dr. McClelland was also called in consultation, and we exhausted remedies and skill, but it was of no avail. Kali bi. is the only remedy that ever gave me any results.

Dr. GRAHAM: There was a time when I became very nervous in attending cases of membranous croup. I yet dread it but not so much as formerly. In the last year I had one case of diphtheritic croup and one of membranous croup. The first case began in the usual way, the membrane forming first on the tonsils. The usual remedies, bell. and merc. jod. rub.[3x] were given, the latter, especially, acting nicely for two or three days, when the laryngeal symptoms set in. The patient was a delicate child with fair complexion, and there was great general prostration. As the disease advanced into the larynx I felt a great degree of interest in the case. Within twelve hours of the first invasion of the larynx, dyspnœa set in. I gave kali bi.[2x] and continued it for several days. Thinking something else might do better, and for the constitutional symptoms, I gave phos., but soon returned to the kali bi. and the child recovered. The hoarseness persisted for two weeks, for which phos. was prescribed after the membrane had disappeared. There was no discharge of patches of membrane, but it came away in the form of pus.

In the other case, that of membranous croup, I was not called until the child was apparently in articulo mortis. There was great dyspnœa; hoarse cough in paroxysms; the

voice gone; cyanotic; lips and nails blue. I gave kali bi., but it did not seem to help, and I gave bromine on account of the hissing sound of the breathing. Believing that tracheotomy afforded the only hope for the patient's life, this operation was performed, Drs. Buck and Adams assisting. The child improved immediately, and got well. There was no doubt of the diagnosis. In this case, also, the membrane was discharged in the form of pus. Chloroform was used in the operation.

Dr. BURGHER: These cases are rather tolerant of chloroform and it seems to relieve.

Dr. DUDLEY: I hope those who mention deaths after tracheotomy will say how they die, whether by suffocation or otherwise.

Dr. EVANS: I was called to a case of croup a short time ago. The child had the hoarse barking cough, high fever, and all the symptoms ushering in an attack of true croup. I considered between bell. and aco., but the skin being hot and dry, I gave aco. in water, a dose every fifteen minutes. In the morning there was not much improvement, and, believing spongia was indicated, that was given until the evening, when, there being but little improvement, I sent for bromine tincture, and put a few drops in a boiler of water, and making a tent over the crib, directed the vapor immediately over and about the child. I continued the spongia, but did not renew the inhalations, and in a week the patient was well.

Dr. PITCAIRN: I had fifty cases of diphtheria last winter, and among them four cases of diphtheritic croup. Three of these cases died, one of them my own child. It died under the use of kali bi. and inhalations of iodine. An older child had been cured of membranous croup by the same treatment.

One other child that died while giving it inhalations of bromine would probably have survived but for an accident. The child was relieved, but some children coming into the house, threw the door open and caused the patient to take cold.

Of the fifty cases of diphtheria I lost six, the remainder of the cases being cured by merc. jod.^{2x}

Dr. BUCK: I have had some experience in this disease, and

have cured some cases and lost some, but I would speak particularly of the surgical treatment. I have operated in five cases of membranous croup where it seemed as if the patients could not survive a half hour, but after the operation the breathing became easier in a few minutes.

In one case in which I was called, to operate, by an allopath, the child recovered. In this case I succeeded in passing a pair of curved forceps down to the bifurcation of the trachea and taking out the membrane.

One case, which was in a very bad condition, died during the operation from suffocation. One lived thirty-six hours and died from suffocation; another died in twelve hours of exhaustion.

Of four cases of tracheotomy for diphtheritic croup all died. From one I pulled out a membrane measuring five inches in length, it having extended three inches beyond the bifurcation of the trachea.

I used anæsthetics in all these cases, and it seemed to have a palliative influence. I do not think the deaths were due to the operation, except that possibly one life was shortened a half hour.

Dr. DUDLEY: I had one case of membranous croup in a healthy boy of thirteen months, in which spongia, bromine and kali bi. were used. I did the best I could, and finally called Dr. J. E. James in consultation. The doctor was not willing to perform tracheotomy except as a last resort, but the child becoming cyanotic, the operation was done. An anæsthetic, I think ether, was used. The operation was done between eleven and twelve o'clock at night, and the babe immediately breathed easier. We left Mr. Hubbard, a student, to watch the child until the next forenoon. He watched it very closely, but about five o'clock in the morning the child suddenly suffocated, probably on account of the membrane becoming loosened and falling down and becoming lodged in the bifurcation of the trachea.

I had three cases in one house. In one of the cases Dr. C. M. Thomas performed tracheotomy but the child died in a few hours. I held a post-mortem examination, but there was no evidence of obstruction. The only cause of death was

fibrinous clot. Of the other two cases, one died and one recovered.

Dr. MARTIN: In the Supplement to Ziemssen's Cyclopædia I find that Jacobi now only operates to avoid the distressing scene of death. Oertel likewise. These authors make no distinction between diphtheritic and membranous croup.

Dr. MORGAN: I would call attention to the directions of Schussler to use kali phos. in diphtheritic croup or other low forms of disease. I have used it in obstinate intermittents.

Dr. BETTS: Would you expect good results from it in septic cases?

Dr. MORGAN: It is particularly in those cases that it is applicable.

Drs. Bingaman, Pitcairn and Caruthers, having been appointed a committee to make arrangements for an excursion to Bell's Gap, reported that the Pennsylvania Rail Road Company would give us a complimentary excursion to the Gap, furnishing us with a special car and engine.

On motion of Dr. Burgher, a vote of thanks was tendered the management of the road, for their courtesy.

REPORT OF THE BUREAU OF GYNÆCOLOGY.

Dr. B. F. BETTS, chairman of the Bureau of Gynæcology. presented the following papers, which were accepted and referred:

Notes of a Visit to the Woman's Hospital of the State of New York, by J. C. Morgan, M.D.

A Case of Sympathetic Aphonia, by J. H. Marsden, M.D.

Clinical Observations in Gynæcology and Treatment of Nervous Exhaustion in Women, by B. F. Betts, M.D.

Gynæcological Appliances, by J. C. Morgan, M.D.

NOTES OF A VISIT TO THE WOMAN'S HOSPITAL OF THE STATE OF NEW YORK.

BY JOHN C. MORGAN, M.D., PHILADELPHIA.

In the first place, I wish to put on record the courtesy of an eminent physician and gynæcologist of the old school, Dr. T. A. Emmett, the prince of this department of medical practice. To his kind response to my inquiries on a certain topic, I am indebted for the invitation which recently led me to visit his clinic, and to enjoy the opportunity of seeing his hospital work.

I. **Ovariotomy.**—1. The operation had been performed two days before. 2. Adhesions, especially to the stomach, were exceedingly troublesome. 3. The antiseptic method was used. 4. Dr. Emmett prefers the spray to fill the room, through a transom over the door. 5. A recent letter from Prof. Keith intimates his own return to this method. 6. Dr. Emmett doubts the germicide action of Listerism, but finds that mortality is diminished thereby. 7. No medicine had been taken; temperature rose once to 102° F.; no inflammatory or other bad symptoms. 8. No local applications had been made after the dressing. 9. If any be required, as cold, the wound is kept dry by using a one-fourth inch rubber tube, seventy feet long, coiled and fastened in the form of a disc, through which can flow a constant current of water, at any desired temperature. 10. The patient looked and felt quite well, except a a trifling soreness.

II. **Relation of Hypertrophied Cervix Uteri to Laceration.**—*a.* Dr. Emmett, in his book, connects these two conditions, but is evidently misunderstood. He refers really to an atrophic pseudo-hypertrophy of the anterior lip; (he demonstrates the atrophy, disguised by the bulging of the base of the bladder, as he terms it, "a sort of phymosis," by introducing a sound into the latter, and carrying it to the cervix). It seems to be due to obliquity of the laceration, which runs less transversely and more backward than usual. In operating, he simply advances the lateral commissures of the wound to a fairly medium position, closing it with equally long walls,

and securing, thus, a shapely cervix. All this he demonstrated in a patient upon the table.

b. Supra-vaginal Hypertrophy, the form usually in the mind of the gynæcologist, is quite another affair. The canal of the cervix may be demonstrated, by the sound, to be greatly elongated; entering the uterus, perhaps five inches. For this amputation of the os is the popular remedy. Dr. Emmett, however, declares that this supposed hypertrophy is spurious also; consisting of a mere *elastic extensibility* of the cervix, which *disappears* in the knee-chest position.

In this, we find a justification of the clinical testimony of our esteemed colleague, Prof. H. N. Guernsey, who cured such a case, on the eve of an expected operation, by the tonic and consolidating influence of a dose or two of lycopodium.

III. **Relation of the Sphincter Ani to Perinæal Laceration.** — The common idea of laceration of the perinæum "through the sphincter ani" is, that the fibrous recto-vaginal septum is necessarily included in such a tear, and that without this, the injury and its correction are quite simple. This is clearly erroneous, as he also demonstrated, in operating upon a case. The sphincter ani was torn, but not the septum; hence, the functions of the muscle and its associated sphincter vagina were abolished; the effect being easily judged.

The ring-like sphincter ani loses its form and becomes a mere crescentic ribbon about the posterior part of the orifice; and I will add, on my own personal responsibility, the sphincter ani, having lost its central hold, must make the same lateral excursion, causing the well-known gaping vulva, and leading to lost activity of all the vaginal muscular fibres which *need the sphincters as a fixed point.* The many evil consequences of this state of things are also well known. I repeat, however, that for these reflections I only am responsible.

The case operated upon was typical—laceration through the sphincter ani; the thin fibrous septum remaining, covered by cicatricial mucous membrane. It is plain that to denude the wide posterior commissure of the vulva and the labia, and then unite the raw surfaces, simply, would be to omit a very important element in restoration; since the ends

of the muscular ribbon would remain as before, undenuded, ununited, and still embedded in the lateral perinæal regions, without influence on the closed perinæum, and its associated parts; and this, however small the external vaginal orifice may be made.

Dr. Emmett practices a simple and sufficient expedient to accomplish the required result. In the patient before him, after displaying the altered anatomy of the parts, he first of all seized with forceps the ends of the crescent of the torn sphincter, and clipped them with scissors; afterwards denuding the septum, the rectal ridge in the posterior part of the vagina and the labia in the usual way, preserving the rectal mucous flap, which, when retracted, completed a conical concave raw surface, and which, when drawn together by wires, insured downward drainage, and thus the certain reconstruction of the perinæum, despite any unlucky suppuration.

The surfaces being prepared, the clipped ends of the crescentic "sphincter" were first joined with silver wire, apparently almost obliterating the anal orifice; the remainder being united as usual, except that a common, round sewing needle was employed, as Dr. Emmett prefers, and each stitch was made to *emerge* at the median line, and *re-enter,* in passing across the perinæum; the spot being concealed by finally fastening the mucous flap with a superficial suture.

A feature in the hospital economy is the preservation of the fragments of silver wire usually wasted in operations, which reach an annual value of about thirty dollars, and are sold.

AN INTERESTING CASE OF APHONIA SUPPOSED TO BE SYMPATHETIC.

BY J. H. MARSDEN, A.M., M.D., YORK SULPHUR SPRINGS.

Mrs. B., the wife of a Lutheran clergyman, had her first confinement in March, 1880. I learnt from reliable sources, including her own statements, that her labor was very protracted, and characterized by the most agonizing suffering. Labor pains set in on Thursday, and she was delivered with forceps on the following Monday in the afternoon. During all

this time no anæsthetic was given until a second physician was called in, and during the final forceps operation. Whether ether or chloroform was then used I am uncertain, but according to the lady's account of it, not much relief was procured. Several attempts had been made by the first attendant at instrumental delivery, but without success, the instrument repeatedly slipping. Delivery was at last effected, but the head of the child was so contused that it died the next day. It appears, moreover, that a severe laceration of the perinæum resulted, at what stage of the process I am unable to say. This accident seems not to have been detected at the time, or if detected, did not at once receive the proper attention. The patient was left in an extremely prostrated condition, from which she very slowly and very imperfectly rallied. Her health has been bad ever since, although, from appearance, she seems to have been a remarkably muscular and robust young woman. It was not till some months after her confinement I heard through other physicians of the occurrence of the above accident, and at the same time of an attempt being made by her former attendants to repair the injury. Exactly wherein this operation consisted I am unable from any personal knowledge to say. I inferred, however, from the most reliable information I could collect, that the edges were merely cauterized by nitrate of silver, the knife not being used for freshening, and sutures then introduced.

The patient resorted to numerous expedients for the recovery of her health—among these, change of air and surroundings. As soon as she was able to travel she visited her former home in the State of Ohio, where she remained for three months or more. She returned, however, with health, but little if any improved. Considerably more than one year ago she lost her voice so as never to be able to speak above a whisper, and even this with the most painful effort. This trouble then became the principal object of concern and treatment. Various expedients were resorted to, such as tonic medication, inhalations of various medicinal substances, galvanism, etc., etc., all without the least beneficial effect. Her health growing worse, she again visited Ohio, her native place, where she

remained from six weeks to three months. By this last expedient she derived no benefit, but like the woman in the Gospel, "was rather made worse."

Mrs. B. having concluded to return home, her husband requested me to call upon her shortly after her arrival and make a thorough examination of her case, and at least give my opinion whether or not anything could be done for her. This I, of course, consented to do.

My interview with Mrs. B., in compliance with the above request, July 27th, 1882, was the first I had had with her professionally since the occurrences above detailed. When I entered her apartment I found her whisper so feeble that I knew it would be impossible for me to understand her, and, therefore, requested her husband to act as interpreter.

Mrs. B. seemed to be very nervous, said she suffered from a creeping chilly sensation, especially in the afternoon, and complained of pains in the abdomen, which I understood to be of a spasmodic or crampy kind, frequent necessity to urinate, with great urgency; sometimes, when the bowels were a little lax, inability to restrain the fœces; a sensation of extreme tenderness in the rectum; copious discharge of a muco-purulent matter from that canal which she was obliged to wash out every morning with a syringe; the discharge, she said, had a very disagreeable fetor, which I myself did not detect; she expressed her feelings throughout as completely wretched.

The patient readily assented to a digital examination *per vaginam et per anum* which was carefully made, and of which the following was the result: genital fissure considerably elongated from failure of the rent of the posterior commissure to close; mucous membrane of the vagina normal, with the ordinary lubrication of mucous discharge; no unhealed opening could be detected; os uteri seemed to have suffered from a slight rent in labor, but had healed without forming a sufficient cicatrix to impair the general health. Upon this subject, however, I am somewhat incredulous, and perhaps I may be pardoned the digression, when I say that it is my honest belief that if chloroform were judiciously used when we encounter a rigid os uteri in labor, lacerations of that organ would seldom

occur. The womb itself seemed to be in situ; perhaps somewhat heavier than natural. No tenderness of the os was detected upon pressure.

The examination per anum yielded the following results: sphincter ani muscle as usual circular and entire but somewhat relaxed. I carefully put it upon the stretch in all directions, but could detect no cicatrix, and I think it must have escaped laceration in the accident above mentioned. Carrying the finger further up, the anterior wall of the bowel seemed more boggy than natural, and at a height reached by the tip of the index, there was an extremely tender space, which the patient said was the point at which she constantly experienced a painful, sickening and most annoying feeling. This, as above intimated, was upon the anterior wall of the bowel, and it seemed to me to be somewhat swollen. To have made these examinations entirely satisfactory, I am aware specula should have been used, but as the above results seemed to me sufficient upon which to base treatment, I did not propose the use of instruments to which, at present at least, objections would probably have been made.

I ventured to express to Mrs. B. and her husband that I regarded the whole morbid picture as presented, including loss of voice, as arising from the local affection, whatever might be its intimate nature.

I felt it somewhat difficult to prescribe, so much of the previous history of the case being utterly beyond my reach. It was on Thursday morning I saw and examined the patient. In the afternoon of that day I sent her collinsonia canadensis; the tincture triturated upon sugar of milk at the rate of one drop to each dose. I regret I have forgotten the interval between the doses. She began taking the medicine the same afternoon.

I did not see Mrs. B. after the examination till exactly at the expiration of one week, nor had I heard anything of her. She then met me in the parlor with a cheerful, smiling countenance, and addressed me in a voice as whole and sonorous as she had ever possessed. "Why Mrs. B.," said I, "what does this mean?" "Well," said she, "on Saturday evening my

voice began partially to return; it improved all day on Sunday, and on Monday I could speak as well as now, and have been able to do so ever since." I asked her about her general health, to which she replied, "I feel like another person." I told her she need not expect a sudden, complete return of health, that she would experience interruptions; but that I trusted onward progress would ultimately triumph over these, and that she would get well. On one or two occasions since that time, she has had drawbacks from some indiscretion in eating or over-exertion, but she has gradually and satisfactorily improved. Most of the symptoms have nearly disappeared, and the discharge, though it still exists, is steadily decreasing. Her husband reported her to me not more than three or four days ago as doing very well. The date at which I write is August 31st, 1882.

I am aware that loss of voice sometimes suddenly disappears without medication. I had my doubts whether this might not be a case of this kind. I would certainly have believed it to be so had there been no improvement in any other direction. But this has by no means been her case. Simultaneously with the change of voice, general improvement set in, and I have this moment just laid down a note received from her husband, and dated but yesterday (30th), in which he writes, "She still improves."

Before, however, venturing to report this case, I fully described it to a medical gentleman who probably understands more profoundly the therapeutic properties of our indigenous plants than any other man in this country. I offered no theory, nor expressed nor even intimated any opinion. I simply asked him, would you consider this result an effect of the remedy, or a mere accidental coincidence? He very promptly replied, "I cannot consider it a coincidence. I believe it was a cure with collinsonia."

But the appropriateness of the remedy may be called in question. Collinsonia, the symptomatologist will tell us, has not "loss of voice" in its pathogenesis so far as known. Be it so; but the great therapeutic truth I wish to convey is this: if a symptom in some remote part depends upon a local lesion in

another part, and a well selected remedy be given which curatively affects that lesion, the symptom dependent upon it either diminishes or entirely disappears, according as the curative effect is less or more complete. Extinguish a light and its reflection in the mirror or upon the wall is no longer seen.

But there is, what appears to me, another truth at which I wish to glance before I close these remarks. I believe at least some of our remedies possess latent curative force, which, as yet, no provings, nor key-notes, nor grand characteristics, have so indicated as always to place them readily within our reach. It may be said of them as the Highlander is reported to have said of his bag-pipes: "It hae a great many tunes in it but I canna bla' them a' oot."

There is, moreover, an infinite variety in the idiosyncrasies of human organisms, and hence, one remedy is specifically adapted to this and another to that, and hence, too, we are often disappointed, and perhaps ever will be, in the effects of remedies, even selected with great care according to infallible "key-notes" and "grand characteristics." Hence the wisdom, too, when one medicine fails to try another.

Finally, I have substantially said that in the foregoing case I considered collinsonia as indicated by the diseased condition of the rectum. This was, however, rather the indication of clinical experience, I can hardly tell how acquired, than that obtained from any proving of the drug that has, as yet, fallen under my observation, but which I think some future proving, when made by the proper prover, will yet justify.

Mrs. B. is now taking iodide of arsenic as indicated by the character of the discharge, in alternation with collinsonia[1], but did not till after the full recovery of her voice.

The foregoing too hastily prepared report is respectfully submitted to go for what it may be thought to be worth, and nothing more. In relation to this, each one is, of course, at liberty to entertain his own views.

CLINICAL OBSERVATIONS IN GYNÆCOLOGY AND THE TREATMENT OF NERVOUS EXHAUSTION IN WOMEN.

BY B. F. BETTS, M.D., PHILADELPHIA.

Much of the difficulty experienced in diagnosing the diseases peculiar to women is overcome when the patient is placed upon a couch or table high enough to afford the examiner every facility for the application of all the means and methods desired for this purpose. The flat topped office table will answer for an examining table better than the lounge or sofa usually employed by the general practitioner for this purpose, and is not very much more objectionable to the patient. When the uterine sound cannot be used for the purposes of diagnosis for fear of the injury it may inflict, and it is desirable to test the mobility of the uterus, its relationship to other structures in the neighborhood, its dimensions and outlines, as well as the size and position of other bodies in the pelvic basin, he may resort to the following method:

Pass the index finger into the rectum and the thumb of the same hand into the vagina, press against the perinæum until the thumb reaches the cervix. This will be the landmark from which we take our bearings. With the other hand the abdominal walls are compressed externally so as to depress the uterus and its connections, and engage them between the hand externally and the fingers below. This method of exploration can be employed to the best advantage when the patient is made to turn partly on the left side whilst the examiner stands on the same side facing her.

By hooking a tenaculum into the anterior lip of the cervix, and pulling the uterus gently towards the vulva, the posterior wall can be reached more readily, and the presence of fibroids detected if situated high up in the fundus. In the same way we may aid in the restoration of the uterus to its proper place where it is retroverted.

If the cervix is lacerated and hypertrophied, and the patient menstruates too frequently and too profusely, and suffers from leucorrhœal discharges, we may suspect a diseased condition

of the lining membrane of the uterus characterized by the development of little vascular bodies like papillary projections, which result from prolonged congestion within the endometrium; or the organization of portions of the placenta retained since the last parturition. These can be detected and removed by passing the dull curette over the mucous membrane of the uterus from the fundus to the external opening.

This simple procedure has to be carefully performed, and every precaution should be subsequently taken by keeping the patient in bed for at least two days, and the use of hot water vaginal injections to prevent any septic or inflammatory condition from developing. Much disappointment has been felt by the inexperienced operator in the results of the operation for lacerated cervix on account of this diseased condition of the uterine mucous membrane not having been recognized and cured before the trachelorraphy was performed; for in that case the uterus will remain large and subject to displacement, whilst the profuse menses and leucorrhœal discharge continue.

For simple, uncomplicated endometritis or uterine catarrh the most efficient remedies have been such as we use for catarrhal conditions of the nasal mucous membrane and elsewhere. They are nux vom., merc. v., puls., sep., hydrastis, arsen., etc. When the parenchymatous tissues are involved, and the disease is chronic in character, we find indicated beside the above, such remedies as the salts of potassa, aurum., in its different combinations, lyc., nitric acid, alumina, iod., etc., thus completing the analogy with the chronic form of nasal or bronchial catarrh.

When the infravaginal portion of the cervix is one large, swollen, vascular and granular sore, with a profuse discharge pouring from it continuously, we can benefit the patient by modifying the vascularity and diminishing the drain if we puncture the mucous membrane and submucous tissues in a number of places by means of a small bladed knife; our object being, not so much to deplete the parts by the amount of hæmorrhage induced as it is to occlude the capillaries by the retraction and healing process which ensues. The scarification seems to be followed by the best results when it is done

within the second and third week following menstruation, and has to be repeated several times at intervals of from five to six days. Lyc.[200], nitric ac.[30], ferr. jod.[6], ars. jod.[6x], are the remedies which have been most frequently used, although many others have been required, for the disease resists all forms of treatment and the cure is a tedious process in many cases.

Pessaries, it seems to me, require to be removed and replaced again more frequently than is generally supposed. The question has been discussed recently whether they are ever capable of curing uterine displacements. It seems to the writer to be unscientific to rely upon them to effect a cure. Splints applied to a fractured limb do not cure the broken bone, but nature accomplishes the cure, and the splints if properly applied assist by keeping the fracture in a favorable position for union, but they will destroy the utility of the limb if worn too long. So do pessaries assist in keeping the uterus in the most favorable position for the restoration of its natural supports to their healthy condition, but they also destroy the utility of these supports if they are worn continuously.

The treatment that succeeds in a good many cases consists in applying cotton wads about the cervix after replacement, to keep the uterus in position; the patient removes these herself in forty-eight hours, after which the organ is left to depend upon its natural supports for a time, and another replacement effected when these do not suffice to keep it in position. Each time the treatment is instituted, we find an improvement in the case until the cure is effected. Confidence can be placed in the efficacy of our homœopathic remedies in the removal of concomitant symptoms and the promotion of those nutritive changes which increase the tone and vigor of all parts alike.

The pelvic distress some women suffer from, is entirely disproportionate to the amount of uterine disease present, and this can only be accounted for by the extreme irritability of the nervous system in these cases. Much of the ovaralgia, dysmenorrhœa, etc., complained of by these women is due to the increased susceptibility of the nervous system to pain. This abnormal irritability of the nerve centers arises from an improper mode of life.

The facilities offered the present generation of women for the enjoyment of physical ease and luxury, are accountable for much of their suffering. The physical exercise of the common servant would be a blessing to the fashionable housekeeper of the present day. Formerly the duties of the housekeeper required her to be physically employed from morning until afternoon, without much anxiety of mind; but now the duties of housekeeping devolve upon the servants, and they are so inefficient as to require a constant increase in the force employed, which brings with it an amount of mental labor and worry entirely disproportionate to the physical exercise taken by the presumed head of the household. It has been truly said that there are hundreds of ladies in our large cities who do not walk a mile a day for weeks together, and many more who have never engaged in any exercise which called forth the action of other muscles than those employed in the quietest locomotion. This great defect in the mode of life persued by some ladies begins at an early age, even during their school days, when the mind is under a constant mental strain from study without the body obtaining enough physical exercise to strengthen the system to endure it.

The victims of this impressible, overstrung and irritable condition of the nervous system constitute such a large class of the patients who apply to the physician for treatment, that it becomes important for us to be able to recognize them so as to apply the proper hygienic as well as purely medicinal treatment.

This class of patients, as Dr. Weir Mitchell has pointed out, are not always thin and delicate looking, long chinned, long nosed little women, but they are sometimes fat and plump; but when we come to examine this fat we find it is not good, solid, adipose tissue, and there is something in the facial expression of the patients which indicates poor health. The skin is pale for it is always anæmic. A slight abrasion is not followed by capillary oozing as in health, and when it is felt it is either dry and harsh, or else covered by a profuse dampness. Such patients complain of a never ceasing sense of fatigue.

These cases require something else than medicine to make them well. It may not be the "rest cure" of Dr. Mitchell in all cases, for in many instances the plan of forced alimentation, with properly directed exercise, will suffice. Prof. Byford recommends the ingestion of beef three times a day to an extent only limited by the ability of the stomach to retain it. Three ounces of beef must be partaken of for breakfast in some form, six ounces for dinner, and three ounces for supper.

In the treatment of the diseases peculiar to females it is necessary to be constantly on the watch for such cases, and when we find them, forced alimentation will often benefit them. Other food than meat may be taken, such as stewed fruit and vegetables, but whether these are partaken of or not, the meat must be taken even at the risk of causing nausea. When a woman is anxious to get well and strong, she will try hard to follow out this treatment which is truly distasteful to her at first, on account of her appetite being poor and calling for such unsuitable food as ice cream, cakes, etc., rather than a more substantial diet. If she is not anxious to get well, but holds on to her ailments as to her possessions, of which he who would deprive her must be considered by her as almost a thief, then she will require the rest, electricity, massage and enforced alimentation recommended by Dr. Mitchell in such cases.

To carry out the latter method of treatment a competent nurse, isolation from the family and sympathizing friends, with massage, are indispensable. Without these you fail in curing such cases.

Dr. Beard classifies the cases of nervous exhaustion under two heads, as they suffer most from brain exhaustion (cerebrasthenia) or spinal exhaustion (myelasthenia). And it answers a good purpose for us to follow his example, for "in cerebral exhaustion active muscular exercise in reasonable amount and variety may be allowed and enjoined. In spinal exhaustion, relative and in some cases absolute, rest is demanded, and only passive exercise for a shorter or longer time as may be, according to the special peculiarities of the individual. A neglect of the cardinal distinction of these two forms of

nervous exhaustion is the constant source of error in giving advice to patients."*

The two forms are, however, combined, and not unfrequently alternate with each other in the same individual. Hence it follows that the patient must be watched, and her case studied by the physician, and treated according to the symptoms presenting. Dr. Beard himself is so firmly impressed with the necessity for individualization that he says, "If two cases are treated exactly alike it becomes highly probable that one is being treated improperly."

GYNÆCOLOGICAL APPLIANCES.

BY JOHN C. MORGAN, M.D., PHILADELPHIA.

I. In these days when there is such a multiplicity of appliances proposed for the relief of uterine displacements, it is well for us to obtain a good understanding of the principles determining these, so as to know just what remedial means are required in a given case. All the usual expositions of these are too limited and partial. That given by Dr. E. P. Banning, of 101 Boylston St., Boston, in the little pamphlet which he distributes in the interest of his body brace, directs attention to some of the most important.

In the lumbar region of the spine of a normal woman, there is a decided forward curve. On the integrity of this curve largely depends the prophylaxis of uterine displacement; but it almost seems to be the intention of dress-makers, and of all who have to do with the arranging and manufacture of women's apparel, to obliterate this normal curve and by this means to multiply these disorders, by all sorts of infringement upon the freedom and normal projection of the epigastrium. This is the "open secret" in uterine displacements. Again, woman is naturally short waisted; but from the mistaken idea that a long waist is more beautiful, every means is used to make the figure conform to this idea of beauty. By the use of corsets the waist is forced backward, extended downward and decreased

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*Beard, Nervous Exhaustion.

in girth; the contents of the abdomen being also forced downward, they protrude excessively in front of the pubes, as well as into the pelvic cavity. Thus the normal semi-ellipse of the abdominal profile is ruined, and a repulsive sigmoid outline takes its place. The coerced viscera, seeking the perinæum, carry the uterus along with them at the same time. Not only so, but in order to obtain still more room for the contents of the abdominal cavity, nature provides another outlet by the forcing backward of the lumbar curve, and thus room is obtained for these visceræ. But by this backward curve of the spine, the nearly vertical normal inlet of the pelvis is carried to the horizontal position, and a path afforded for the descent and displacement of the internal genitalia, and some form of dislocation must occur. Normally, every step projects these organs forward and upward; but now, in the contrary direction.

The primary object, then, in the treatment of these affections is to restore the lumbar curve to its proper position, and with it the abdominal ellipse. This being done, and the pressure being taken off from below the normal waist line, *i. e.*, the border of the thorax, sloping downward and backward, an opportunity is afforded for the return of the affected parts to their normal position. Until this is attended to, pessaries and supporters do more harm than good.

As an excellent aid to the restoration of this curve, I would mention a brace made by Dr. H. F. Briggs, of 115 W. 73d St., New York, and which may be used in conjunction with an abdominal supporter. With the lumbar curve, the positions of the pelvis and of the head are also restored to the normal. This brace, or "Physical Trainer," as it is properly called, can be used by men as well as women. Its primary principle is, discarding all hindrances, to utilize the otherwise obnoxious weight of the clothing in holding back the shoulders; immediately upon which the compensations compel the semi-voluntary correction of all the rest, gradually becoming more and more constant. Regular gymnastics and full hygienic methods confirm the results.

The "Boston Reform Suit," or its equivalent, I regard as essential in this direction.

II. Having provided for the fundamental requirement of a restored spinal column, with gymnastics * and hygiene superadded, we often may do all we yet require by means of symptomatic Homœopathy. Still, in cases of uterine dislocation of long standing, an internal support—a pessary—may prove a temporary necessity.

Last year I called attention to the instruments of Dr. Fowler. To-day I show you another Western device—that of Dr. O. E. Herrick, of Grand Rapids, Mich. *En passant* I would refer briefly to his modification of Dr. Emmett's operation for lacerated cervix uteri. He records the best results from the substitution of elastic pressure for sutures. This is effected by applying an India-rubber finger-cot about the cervix, after denudation. The woman goes about, carefully, daily injecting one-half gallon to one gallon of hot water for one week; when the wound is usually found healed.

This original gynæcologist has furnished us with a novel pessary also. As you see, it consists of a stout stem of doubled and twisted silver wire, the initial loop of which is utilized for its own support by fine rubber tubes, pendant from a waist band, in a somewhat peculiar manner. The ends of wire form a fork, to which is attached a soft India-rubber teething ring, the ends being well imbedded in the rubber, for the protection of the tissues. The stem is now bent to suit the nature of the displacement. Any uneasiness within the vagina will surely indicate that this has not been correctly done, and that the bend needs alteration; and this may be effected without removal.

The application is as follows: The buckle of the waist band being located at the left side, the rubber tubes (the supports) are attached to the posterior eyelets; the patient is now placed in the knee-chest position; the uterus is replaced; the ring is inserted, and fixed about the cervix; the tubes are passed through the wire loop, and carried up to, and fastened in the front eyelets; the (anterior and posterior) tension is regulated, and the proceedure is complete.

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* The "Pocket Gymnasium," of the Rubber Company, is the cheapest, as it is one of the most practical of expedients. *Restored muscularity* is the sine qua non of *permanent* cure of the errors in question.

Inveterate displacements, especially versions, notoriously elude nearly all instrumental restrictions; but I have been more than pleased with the measure of efficacy which this pessary of Dr. Herrick's has displayed in such cases.

REPORT OF THE BUREAU OF PATHOLOGY AND PATHOLOGICAL ANATOMY.

No member of this bureau being present, the Corresponding Secretary presented the following papers which were accepted and referred:

Fibro-Rhabdo Myoma of the Kidney, by C. M. Thomas, M.D.

Cystic Sarcoma, by C. E. Toothaker, M.D.

Cases of Peritonitis from Obscure Causes, by A. R. Thomas, M.D.

The Minute Changes Occurring in Sub-acute and Chronic Parenchymatous Nephritis, by W. C. Goodno, M.D.

Meningo-myelitis, by W. K. Ingersoll, M.D.

Duodenal Disease, by C. R. Norton, M.D.

FIBRO-RHABDO MYOMA OF THE KIDNEY.

BY CHARLES M. THOMAS, M.D., PHILADELPHIA.

The following case deserves a place in the literature of morbid anatomy as illustrating in a marked degree a class of new growths hitherto extremely rare. Although I have been informed on good authority that a few such cases have been reported, I have been unable to find any mention of these formations in any, even the larger works on pathological anatomy at my disposal.

Case. — In the spring of 1880, I was called by Dr. S. Pancoast to see with him a little child (male, aged about 3 years) who, during the previous eighteen months, had developed a gradually increasing abdominal enlargement, concerning which various opinions had been given as to its nature and probable termination. At the time of my visit I found the child much emaciated, with a dry but cold skin; lower extremities slightly œdematous. The abdomen was enormously

distended, and equally so in all directions. Abdominal veins quite distinct. Palpation showed no fluctuation, but some lateral motion on pressure with the hand. The enlargement seemed to be made up of one solid or semi-solid mass, with smooth surface. Percussion gave tympanitic sound in the epigastrium and left flank. The results of auscultation were entirely negative. The subjective symptoms were very meagre. The child complained of but little pain, and evidently suffered mainly from oppression in breathing. There had been no cough or vomiting. The bowels were tolerably regular but constipated. Urine was usually voided normally both as to time and quantity, although occasionally it has seemed scanty, and this fact, together with the œdema of the legs, had led one physician to pronounce the enlargement due to dropsy.

I declined to give a decided diagnosis, but was inclined to the opinion that the growth was a malignant one of the omentum or mesenteric glands. Prognosis, of course, absolutely hopeless.

About six weeks later, I was applied to by the father to make an examination of the child, post-mortem. Inspection externally showed about the same condition found at first visit. Upon thoroughly exposing the abdominal cavity, I found the intestines displaced upwards and to the left by a solid, nearly spherical mass as large as a fœtal head at least, which appeared to have grown forward between the mesenteric folds of the peritonæum; it occupied more especially the middle and right abdominal space. It was movable, and upon being lifted somewhat out of its bed revealed a smaller and more irregular shaped tumor behind it, and somewhat to the left of the middle line.

Supposing them to be cancerous mesenteric glands, I enucleated them with fingers and scissors. The surface of a section through their middle presented a dead white appearance, and a consistence similar to that of a mixed sarcoma—which I then supposed them to be. The peritonæum contained but little more than the ordinary amount of fluid; the liver and spleen were apparently normal.

Upon thrusting my fingers into the lumbar region, how-

ever, I was exceedingly surprised to find no trace of a kidney on either side; and it was only after a prolonged and fruitless search that we were led to suspect the possibility of finding the organs involved in the tumors, although, as has been stated, they lay decidedly removed from the normal location of the kidney.

Upon careful inspection of the larger growth, no vestige of kidney structure could be found; but on one surface of the smaller one, there was faintly outlined against the white background a pinkish figure resembling somewhat that of a kidney, and upon section there was shown what appeared to be the remains of cortical substance. Upon still closer search the ureter was made out and traced into this portion of the tumor.

Microscopic examination made by Dr. W. C. Goodno demonstrated the tumors to be composed mainly of fibrous tissue, springing from kidney structure, and interspersed with a considerable amount of striped muscular bands.

Under the microscope the larger tumor showed distinctly the kidney structure, although it was not perceptible to the naked eye.

CYSTIC SARCOMA.

BY C. E. TOOTHAKER, M.D., PHILADELPHIA.

A very interesting case with which I have had some connection, has induced me to prepare the article I am about to submit to your consideration, and which I propose to make more a symptomatic detail of this particular case than an exhaustive article on the nature, causes and treatment of cystic sarcoma.

In the month of October, 1878, I was called to attend the case of Mrs. D. M., whom I found totally blind and otherwise in a semi-paralytic condition. The history of the case as detailed to me by the patient and her mother, who was at this time also her nurse, was as follows:

On the 19th of January preceding she had given birth at the usual period at Wilmington, Del., to a well formed and

apparently healthy child. For the first two weeks her case progressed favorably, as is usual with such cases, and she was allowed to be up and to leave her bed-room and go into the sitting-room. Dr. Draper, a very reputable allopathic physician, attended her during her confinement and afterwards.

From what cause it does not appear, but very soon after leaving her room she was taken very sick and complained much of severe pain in the occiput and down the spine—severe neuralgic pains. The doctor thought she had taken cold. She grew worse, became very much alarmed, thought she was going to die, sent for her mother, who came, and afterwards became her nurse about four weeks after her confinement. The mother says she found her very sick, confined to her bed, complaining of severe neuralgic drawing pains, and paralytic pains in the occiput and base of the brain, and at or about this time began to lose her sight, though she still continued to nurse her child.

Two or three weeks after the mother's arrival, which were weeks of great suffering and distress, an abscess appeared on the forefinger of the right hand, attended also with distressing pains like a carbuncle or felon. She complained also that when the left hand hung down by her side the pains from the finger of the right hand seemed to draw from the back of her head. If she held her hand up towards her breast her head would pain her very badly. If she held her hand downward her hand would be bad, and she could get no respite from the severity of her sufferings. She was all this time very sick in bed, unable to be up, had much fever and intense pain.

Dr. Draper being still in attendance, called in Dr. Bullock, of Wilmington, as counsel. During this period of suffering her sight had become very much affected. She could not see distinctly; could only see the shadow of objects. No pain or distress in the eyes themselves, but pains mostly in the occiput, back of the neck and in the sore finger.

Dr. Bullock attended with Dr. Draper nearly two months, during all of which time she suffered intense pain either in the head, or in the finger, or in both. Dr. Bullock expressed the hope that the abscess would draw away the disease from

her head, and restore her sight. This did not prove to be the case. She got worse, became prostrated, very low, quite delirious, and the doctors decided she must die; there could be nothing more done to save her. About this time Dr. Bullock discontinued his visits, but Dr. Draper continued in charge, and the mother got permission from the doctor to omit the narcotic medicines which she had been taking, instead of which the doctor gave her some tonic medicine. For two or three days she seemed to suffer much for want of her accustomed narcotic, and they had a good deal of trouble with her. Soon after she seemed to improve a little, and in two weeks after Dr. Bullock left her she was helped out of her bed into a chair.

In about two weeks more she was helped again into the sitting-room, her sufferings being much less intense, frequently remitting almost entirely, and being more confined to the occiput and neck. She continued to improve till about Easter, when Dr. Draper consented to her coming up to this city (Philadelphia). She was at this time entirely blind. She seemed to endure the journey very well, but was taken very sick the next day.

Dr. Weir Mitchell and Dr. Thompson were now called to attend her, and she remained in their care about three months. Her mother describes the attack as a kind of fainting fit, as when any one faints away; but she says the doctors spoke of it as a spasm or convulsion. It lasted about three-quarters of an hour, and another lighter one occurred a few hours after. Dr. Weir Mitchell said he did not care about undertaking the case, but if her husband wished it he would do the best he could.

Immediately after these spasms, she was taken with very severe aching, dragging pains, from the occiput along down the spine. Bags of hot sand, applied to the parts, and rubbing with chloroform, seemed to afford some alleviation, and to induce sleep; but the sufferings were still very severe day and night. Bromide of potash, and Fowler's solution of arsenic, were the principal medicines given. They were given in alternation for about two months.

During this time she complained of seeing strange sights, such as people fantastically dressed like the Japanese and other fantasies. She would see them only in the daytime, but as it began to grow dark they would all disappear. She would be much annoyed and fatigued by their presence, and become rested when they were away. After two or three months, all medication was suspended, and in about three months after her coming to Philadelphia, she again returned to Wilmington. She now improved considerably, had a better appetite, could go about the room, and sometimes go out with an attendant and with proper support. She came again to Philadelphia and came under my medical care October 29th, 1878.

At this time I made the following record of her case: Sick all the time since her confinement, nearly ten months ago; entire loss of vision; imagines she sees occasionally a reddish light, then everything becomes dark, then light again; sees no object of any kind.

Two or three weeks after confinement had an attack of severe neuralgic pains in the occiput, or at the base of the brain, followed gradually by complete loss of sight. Now suffers from sensations of a shadow over the right eye, with severe pain, soreness and pressure below the eye, as if in the cheek bone, near the nares; sensation in the right side of the tongue as if burnt; tongue cracked or fissured on the right side; partial paralysis of the tongue; pains in the head and back aggravated by exercise or by walking; right side of the head and face feel as if some one had struck her a heavy blow, and as if swollen from the bruise. Often, if she bends over forwards, has pains along the spine below the occiput and in the nape of the neck. When she was sick, she suffered with dreadful numb, drawing, aching pains in the arms. Now, if she gets fatigued, suffers similar pains in the back of her head and in her heel. Has frequent nervous spells, lasting now but a few minutes. No pain in the eyes themselves, but pain around the orbits of the eyes, especially around the orbit of the right eye, and right cheek bones. Loss of smell nearly entire, and partial loss of taste. Soreness and partial paralysis of the right side, right arm and right limb, with the mouth and

features of the face slightly drawn towards the right side. Periodical turns of nervous prostration and debility. She was at this time quite feeble, suffering probably from the fatigue of the journey, with a good deal of fever and nervous prostration; unable to be out of bed. Under appropriate homœopathic remedies, she gradually got better, and on the 13th of November, just two weeks after she came to the city, I was enabled to take her to the office of Dr. Charles M. Thomas for a careful ophthalmoscopic examination of her eyes. After this I wrote to her husband the following diagnosis or prognosis of her case :

Mr. D. M.—*Dear Sir :* Knowing how important the case of Mrs. M. has become, involving as it does the question whether she shall see or not the remainder of her life, I have caused a careful examination to be made, and can now confidently state—

1st. That the eyes, that is the eyeballs, from the back to the front, inside and outside, are perfect and in good order with no obstruction; the humors and liquids in the eyeball being in a healthy state, with no imperfections, except a slight irregularity of the iris of the left eye, arising from an iritis, which occurred many years ago, and which has no probable connection with her present condition.

2d. That her loss of sight has not, in my opinion, occurred from anything existing at or before the time when she left her room and went into the sitting-room, some ten or twelve days after her confinement, but has been created by febrile conditions setting in and becoming established after that date.

3d. That her loss of sight has been the result of, or has been produced by, the same cause as produced the excessive occipital cephalalgia, with which, as I am informed, she was distressingly affected for a considerable time.

4th. That this cephalalgia was connected with an inflammatory condition, which has obstructed the optic nerve either by drying up and consequently paralyzing the nerve itself, or by such tumefaction as has produced sufficient compression or pressure, as altogether to prevent the regular and healthy action of the optic nerve.

5th. That the possibility of her recovering her sight depends upon the possibility of removing the results of that inflammatory condition, which nature will have more power to assist in doing, the sooner she is restored in all other respects to a healthy state.

6th. The experience of old school physicians has been such as in general not to lead them to expect a cure in cases of this kind. They are generally pronounced incurable by the allopathic fraternity.

7th. Homœopathic experience has not been long enough, nor extended to a sufficient number of cases, to enable us to speak decidedly either way. If the general health be restored and kept good, it places the patient in the most favorable position possible for the removal of the results of inflammation, either by absorption or otherwise, and for the action of such remedies as will restore to the optic and other nerves a healthy action. If this can be accomplished it will certainly restore the sight in cases like this.

8th. I believe beyond a doubt that the chances of success are much greater with Homœopathy, which has so seldom had a patient or faithful trial, than with allopathy, which in so many hundred years of experience, is unable to point to any favorable results.

9th. In my opinion Homœopathy offers to your wife the best chance possible for the restoration of her sight and the improvement of her health.

At the end of five weeks she returned to Wilmington much improved in general health and imagining at times she could see light and the shadow of objects, which was no doubt imaginary, but with greatly improved powers of locomotion and with the symptoms of pain and paralytic sufferings much lessened. She could go to the table, move about the room a little, and enjoy her food better. On the 12th of December she had lost her babe, which produced such an effect upon her that her husband sent for me to visit her at Wilmington. Under ignatia, cup., bell., and other remedies, she gradually recovered her former condition, and continued to improve until December 24th, when she returned with her family to this city.

I continued to prescribe for her until October, 1879, during which period I think I may safely say she did not get worse, and although there was no restoration of sight, yet her general health was improved in many particulars. July and August were mostly spent in the country, and in October, from causes which I could not control, my attendance ceased, and I knew little of her condition until she sent for me in August, 1881, almost two years. I had heard, however, that she had had

what was now called another stroke of paralysis, similar, I presume, to what she had when Dr. Weir Mitchell was called to attend her, except that this stroke was on the left side whilst the other was on the right side of the body. She was now much debilitated and was having frequent attacks of what the family called spells, or fainty spells. From all I could learn these seemed to me to be slight spasms followed by nervous debility and prostration. Although I frequently prescribed for her during the latter part of the year 1881, she was not properly placed in my care till February, 1882. At this time I found her in a condition in which I think none of her friends hoped for or expected her recovery.

Her paralytic condition had greatly changed. It now affected the left side only, whilst in 1879 it was confined to the right side. She assured me that I had cured the right side, but now it had all gone to the left side. However that might be, or from whatever cause, the right side now seemed little affected, whilst the left side was very much paralyzed; the muscles of the mouth, tongue and other muscles being decidedly drawn to the left, the tongue apparently thickened and the muscles of the throat partially paralyzed, rendering deglutition often difficult. The appetite was uncertain or changeable, and capacity to take or retain and digest her food often interrupted.

Febrile paroxysms were frequent, and what were called fainty turns or spells, probably slight spasms, were occurring very often. Much debility. At times she could not leave her bed for several days, and afterwards would be able to walk about the room. For all these varying symptoms and conditions, I continued to prescribe as well as I was able, in accordance with the homœopathic law of the similars, and the experience of our best practitioners, and was often enabled to afford marked relief to particular conditions.

On the 25th of April, after a severe attack of one of the paroxysms similar to those heretofore described, she left the sufferings of this present life. May we hope for the enjoyments of a better, where death and disease are unknown.

Post-mortem.—This was conducted by Dr. R. B. Weaver in

the presence of a number of physicians of both the homœopathic and allopathic schools.

The first thing that attracted my attention was the peculiar discoloration of the flesh, of the skin, and of nearly all portions of the body, a bluish tinge or brownish hue pervading all the parts.

2. The distended condition of the whole venous system; every vein or venous cavity being distended and filled to its utmost capacity with venous blood.

3. On removing the upper calvaria so as to expose the cerebrum and cerebellum the same discoloration and distension were everywhere observable, but the most careful examination of the cerebrum and of the optic nerve contiguous thereto, as well as of the eyes themselves, failed to discover any cause to which the loss of sight or any of the attending paralytic conditions could be attributed.

4. On examining the cerebellum a tumor was discovered on the left side, of about the size of an ordinary turkey's egg, enclosed in a cyst or sack of irregular outline described as a rough, hard tumor, the roots of the sack extending over the pons varolii and encircling or pervading the roots of the optic nerve, which no doubt received constant pressure also from its contiguity to the tumor and from its pressure upon the unabsorbed portions of the cerebellum.

Section of the tumor revealed an ivory white color and fibrous consistence; cysts varying from the size of a pin's head to that of a three cent piece were found scattered through the growth. These were filled with a jelly-like material. Microscopic examination of their sections showed the tumor to be made up of the bands of spindle and round cells characteristic of sarcoma.

CASES OF PERITONITIS FROM OBSCURE CAUSES.

BY A. R. THOMAS, M.D., PHILADELPHIA.

It is not infrequent that we meet with cases of peritonitis, the cause of which is extremely uncertain. Preceded by no mechanical injury and progressing rapidly to a fatal termina-

tion, a post-mortem alone can clear up the doubt and uncertainty surrounding the case.

The following cases, selected from many similar ones that have come under my notice, will serve as illustrations.

Case 1.—**Perforation of the Vermiform Process.**—A little girl of about 12 years, after having taken part in the exercises of a Sunday school festival, was seized with a severe pain in the right iliac region. Fever soon followed, and in twenty-four hours an acute peritonitis was developed. The disease ran a rapid course, and in three days the patient was dead.

A post-mortem held twenty-four hours after death revealed general peritonitis, with slight adhesions of the intestines. The pelvic cavity contained some two ounces of purulent fluid. On lifting the cœcum considerable pus escaped from the region of the vermiform process. On feeling about the part, a hard body was found which, when removed, proved to be a hard cylinder of an inch in length and nearly one-fourth inch in diameter. A more careful examination revealed that this body had escaped from the vermiform process, and through an opening in the appendix caused by ulceration.

The cylindrical body proved to be a cast of the canal of the tube, composed of hard fœcal matter. The cause of the inflammation was now evident enough; the foreign mass had induced inflammation, ulceration and perforation of the tube, this becoming a *punctum saliens* from which the inflammation spread to the peritonæum generally.

Case 2.—**Rupture of the Gall Bladder.**—Mr. T. while working in his garden with a spade, felt a sudden "giving away" in the region of the gall bladder. Pain soon followed, and when I saw him a few hours later, I found him with high fever and great tenderness of the abdomen. Peritonitis was soon diagnosed, and death resulted in three days.

The post-mortem revealed a rupture of the gall bladder and discharge of its contents, including a large gall stone nearly one inch in diameter, into the peritoneal cavity. There were extensive and firm adhesions, evidently old, between the gall bladder and adjoining organs, with appearances of ulceration in the walls of the cyst, and but for the violence resulting

from the use of the spade, the stone might have been discharged safely into the colon or duodenum.

Case 3.—**Discharge of Gall Stone from Gall Bladder into Duodenum: Peritonitis and Death.**—Mrs. S. had had pain and trouble in region of gall bladder for some years, believed to arise from a calculus. During one of her attacks peritonitis set in, accompanied with symptoms of obstruction of the bowels. Death soon followed. The post-mortem revealed adhesions between the gall bladder and duodenum, and an opening between the two, through which the thumb would readily pass, and through which a large gall stone had escaped into the intestines, lodging at the ileo-cæcal valve, and causing obstruction at that point.

Notwithstanding nature's careful endeavor to secure a safe passage of the stone into the bowel, from some cause a peritonitis was developed, bringing about a fatal termination.

Case 4.—**Congenital Deformity of the Mesentery, Hernia, Peritonitis, Gangrene and Death.**—A little girl of about 5 years, previously very healthy, was taken in the night with vomiting and violent pain in the abdomen. When I saw her the next day, there was every indication of acute peritonitis. Death followed in thirty-six hours. Here the post-mortem revealed a congenital opening over the centre of the mesentery, through which a large loop of the small intestines had become forced, producing strangulation and gangrene of the involved portion, while peritoneal inflammation had extended to the surrounding parts.

Case 5.—**Constricting Fibrous Bands, Obstruction and Death.**—An old man who had previously suffered an attack of peritonitis from a blow on the abdomen, was suddenly seized with pain in the left iliac region. Obstruction of the bowels followed. Peritonitis was developed, ending in death. Here was discovered by the post-mortem, old and dense fibrous bands connecting the descending colon to the abdominal walls. Beneath one of them a loop of small intestine had become crowded, the constriction thus produced being followed by the above results.

These cases may illustrate the more frequent origin of the

inflammation in these obscure cases, and serve to demonstrate the importance of post-mortem examinations in all such sudden and mysterious deaths.

REMARKS UPON THE MORE MINUTE CHANGES OCCURRING IN SUB-ACUTE AND CHRONIC PARENCHYMATOUS NEPHRITIS.

BY W. C. GOODNO, M.D., PHILADELPHIA.

The published title of my paper is, I believe, "Minute Changes occurring in Bright's Disease." It was my intention when contemplating the presentation of such a paper to include the various forms comprised under this title. The bulkiness of such a paper, however, deterred me from completing it, and taking advantage of the singular expressed in the title, I shall invite your attention to simply parenchymatous inflammation of the kidney, and particularly to certain features of its sub-acute and chronic forms. Since the publication of Bright's first paper, in 1827, describing the disease since called by his name, the pathology of Bright's disease has occupied a considerable share of the attention of many of the greatest pathologists of the age, if we may judge from the extensive literature of the subject. Still there is much to be unfolded, judging from the meagreness of description in our standard text-books upon certain portions of the subject, as well as from the statements of such pathologists as Charcot, who only four years since said, "in more than one respect the histology of parenchymatous nephritis is still enveloped in profound obscurity." Research must still be in the direction of the more painstaking investigation, by the aid of the improved histological methods of our day, of the course and relations of the various varieties of Bright's disease. Evidently little more is to be done in the direction of classification. Too much has been done already. It is harder to commit the classifications of our prominent authors than to learn the essential revealed histology, and after all we must come back to the masterly discrimination of Virchow, pub-

lished in his Cellular Pathology in 1858, which gives us the three, but often mixed forms, originating in the prominent elements, epithelium, connective tissue, and the vascular system, to wit, parenchymatous nephritis, interstitial nephritis, amyloid disease. Whether the objections of Beale, first, that "the intertubular connective tissue is not the seat of origin of any form of renal disease;" and, second, that "it is doubtful if the vessels can be, in any case, regarded as the starting point of morbid actions," are valid, I am not prepared to decide, but the classification is correct and useful in so far as that the three great forms, so readily distinguishable, have their anatomical seat especially in the three elemental structures indicated.

Chronic Parenchymatous Nephritis. [Syn. large, white kidney; chronic tubular nephritis.]

Etiology.—While chronic parenchymatous nephritis is not unfrequently simply a chronic nephritis which has had its orgin in an acute attack of parenchymatous inflammation, it oftener originates without apparent cause. Exposure to moist cold, extended suppuration, malaria, alcohol, etc., are also recognized causes, but it is rarely possible to trace a clear history of either as holding an undoubted causative relation.

Pathological Anatomy.—In its complete pathological history two stages are recognized. 1. That of enlargement. 2. That of atrophy. This is the simplest classification adopted and the one I shall make use of in this paper. Many authors, Grainger Stewart, etc., add a stage of "fatty transformation" as intermediate to those named. This seems an unnecessary complication. Fatty transformation should be considered as incidental to both the stage of enlargement and the stage of atrophy; it furthers simplicity, so much to be desired. The latest publication on Bright's disease by Dr. J. Tyson, of Philadelphia, recognizes two distinct stages. 1. The stage of enlargement, or the *large, white kidney*; and, 2. The stage of contraction, or the *fatty and contracting kidney.* This division is misleading, as both the stage of enlargement and the stage of contraction present coexisting fatty transformation. Judging from the descriptions of the two stages, however, as given

in this work, we must conclude that the author repented of his classification, for he credits all the fat to the first stage and none at all to the second.

Macroscopic Appearances.—In the stage of enlargement its degree varies much; its weight may reach 8, 10 or 12 ounces; it is smooth, white, or yellowish-white, in color. The capsule is loosely attached, but upon removal it may tear away small bits of the parenchyma. Upon section the enlargement is found to be due to thickening of the cortical portion. The entire organ is anæmic, but the anæmia is specially conspicuous in the cortex. The pyramids still retain sufficient color to stand out in bold relief, although usually paler than normal. The cortex presents a slight greyish-white or dull white color permeated by radiating lines of a brighter color and corresponding in position to the medullary rays. The pyramids may also present this striated appearance due to alternate lines of tubules and blood-vessels.

Microscopical Appearances. — In parenchymatous nephritis all three of the elementary structures, tubules, connective tissue and vascular system, undergo alterations in structure. While the primary changes are exclusively tubular in character, only a few weeks elapse, at least in many instances, before intertubular changes are manifest. The period within which such change is discoverable is much earlier than was at one time supposed. Several cases have been reported by various observers which throw considerable light upon the subject. The most interesting one, perhaps, for the reason that it indicates the earliest date on record at which appreciable increase of connective tissue is manifest is by Langhans. Death occurred in five weeks from the inception of the disease, and marked increase of intertubular connective tissue was apparent. I am fortunately able to add an interesting case of my own to the number, specimens of which are still in my possession. I have made some photomicrographs of the more interesting fields which demonstrate marked increase of connective tissue at the forty-third day from the appearance of the initial symptoms. It occurred in a young lady of twenty years of age, who had been a patient of mine for several years previously, during

which period she enjoyed excellent general health, being troubled only by slight menstrual irregularities. There had been some exposure to cold, but a clear history of a cause could not be satisfactorily made out. Ten days before death peritonitis and pleuritis of the right side occurred which seemed to determine, more especially, the fatal issue, which occurred, as before indicated, upon the forty-third day from the appearance of the initial symptoms. A post-mortem was made ten hours after death by Dr. W. K. Ingersoll and myself. The right pleural sac presented the usual appearances of acute pleurisy with effusion. The abdominal contents were extensively matted together. The kidneys were much enlarged, weighing 10 and $10\frac{1}{2}$ ounces respectively; not as white as we usually see the "large white kidney." The capsule was distended, not adherent, and upon removal exposed a smooth surface, paler than normal, somewhat mottled; surface vessels distinct with some spots of hæmorrhagic extravasation. Upon section the cortex was thickened, paler than normal, with marked prominence of the bases of the cones, which appeared as red as normal. Microscopical examination revealed dilated tubes, stuffed with granular and fatty cells and cellular debris, casts, and a little free fat in some. As shown in the photograph, the tubules are separated by connective tissue bands, measuring from the $\frac{1}{3000}$ inch to the $\frac{1}{500}$ inch in breadth. Notwithstanding special care in preparation the sections present a want of clear definition, a water-soaked appearance.

Microscopical examination of the kidney in chronic parenchymatous nephritis, reveals the changes to be very largely cortical, and affecting, principally, the convoluted tubules and Henle's loop. They consist in the alterations peculiar to inflammation in general, viz.: cloudy swelling, exudation, cell proliferation. First, as the result of the prodigal supply of pabulum produced by the preliminary congestion there results disturbed nutrition. This disturbance manifests itself by a granular and swollen state of the cellular substance, obscuring the nuclei. This is the so-called *cloudy swelling*, and is supposed to be the "impregnation with an albuminoid body, as the cloudiness can be made to disappear by the addition of

acetic acid"—[Rindfleisch]. It seems reasonable to suppose that it is probably due to the flooding of the cellular substance with material which has been imperfectly elaborated by the nucleus—an excess of nutritive material with imperfect elaboration or transformation. "What kind of chemical changes take place in cloudy swelling, has not yet been ascertained"—[Rindfleisch].

The results of cloudy swelling are, first, *distention of the urinary tubules,* especially the convoluted, with a narrowing or obliteration of their lumen, from apposition of the free surfaces of their epithelium. As a necessary consequence, enlargement of the kidney results, thus producing ground for the first division of our classification. In the second place, cloudy swelling impairs the circulation of the blood through the agency of the pressure exercised by the swollen tubules, and should the cloudy swelling persist subsequent to the subsidence of the primary engorgement of the organ, a mechanical anæmia results giving rise to the characteristic paleness of the organ and stimulating the intertubular structures to hyperplasia. As the result of the second process, that of *exudation,* we find the formation of so-called casts or fibrinous coagula within the lumen of the tubes, or occupying the entire tube, from which the swollen epithelia have become detached or removed, and entangling the tubular contents, whatever they may be, *i. e.,* epithelial cells, in various conditions of degeneration, fat drops, leucocytes, etc. *All hyperplasia* probably occurs in the urinary tubules, *i. e.,* in the proliferation of epithelium. But it is especially in the intertubular connective tissue that it is conspicuous, the scanty connective tissue existing between the tubules increases in bulk, forming bands varying from a merely appreciable line of separation to tracts of nucleated tissue, filling the entire microscopic field. In some instances hyperplasia of the connective tissue is distinctly appreciable in the middle of the second month, and the number might be multiplied had we the opportunity of making more frequent examinations in the earlier weeks. In the majority, however, marked changes are not to be seen under three to six months, and years may elapse with astonishingly little increase.

A quite remarkable case illustrating this fact has fallen under my own notice in the case of a prominent gentleman of Philadelphia, who was under my care from March, 1873, until his death two years since. He had been a man of correct habits, although much exposed for several years previous to his illness. Upon several occasions he had passed bloody urine, and once had quite a hæmorrhage previous to the date of my knowledge of his case. He complained simply of frequent micturition with failure of strength. Examination of his urine revealed about 33 per cent. of albumen and a few hyaline casts. Under treatment the albumen rapidly diminished in quantity, and while for several years it would occasionally increase to nearly the former quantity, it persisted for only a short time, and upon the whole there was marked improvement, with, during the last few years, only an occasional trace of albumen, and rarely a cast. Death occurred twelve hours after an attack of apoplexy. Post-mortem eight hours after death. The head was not opened; the heart and lungs were normal; kidneys were about normal in size, smooth; the capsule was not adherent. Upon section the cortex appeared perhaps a little thickened and paler than normal, with rather prominent appearance of pyramids. Microscopic examination of sections, stained in carmine, showed the epithelium of the convoluted tubes mostly cloudy with faint nuclei. Swelling of the epithelium was not very great, as the lumen was mostly preserved, and the tubules neither distended nor distorted. The epithelium was not displaced nor the tubes "stuffed." Considerable search through many sections revealed only a few hyaline casts in the convoluted tubes, a considerably larger number being found in the loops of Henle. There was no change in the connective tissue of the cortex, but slight thickening in the pyramids.

This case is corroborative of the statements of Charcot, which are not emphasized by authors in general writing upon Bright's disease; which are, in short, that parenchymatous nephritis may exist with so slight appearance of anatomical alteration as to be quite inappreciable to any but an experienced observer, and to have led early observers to state the micro-

scopic examinations to be negative. It is apparent that considerable difficulty may occur in the detection of parenchymatous nephritis, in at least some cases. Charcot has also said, concerning such, "You perceive that it is, as I announced, only a question of simple shades, of a sort of exaggeration of normal conditions," and Rindfleisch gives the following excellent advice, "We must undoubtedly lay the most weight upon the total effect of the changed tubuli upon sections; their decided dilations; the varicosity of their outer contour; finally, a certain not inconsiderable swelling and increase of thickness of the tunica propria (which according to my experience is never wanting) insure the microscopic recognition of the morbid condition better than the observation of a single epithelial cell."

As the result of the contraction of the newly formed connective tissue, we find an atrophy of the tubules, with diminution in size and weight of the organ constituting the second stage, or stage of *atrophy*. The capsule is here and there adherent, and upon removal may drag bits of parenchyma with it. The surface is irregular, mottled, and with prominent stellate veins. The irregularity is not uniform in its distribution, portions being quite irregular, others smoother. [This serves as one of the aids to differential diagnosis between the condition in question and the cirrhotic kidney.] Section of the organ shows the atrophy to be mainly at the expense of the cortex, the pyramids remaining little changed. The tubules are many of them dilated and distorted, loaded with altered epithelium or fat, while many are atrophied and collapsed, forming sac-like cavities filled with the debris of the tubular contents. Many of the malpighian tufts are atrophied and the whole or a portion of the tuft devoid of nuclei, or presenting the appearance of a fibrous ball with spindle-shaped scanty nuclei. The capsule is greatly thickened, presents few or no nuclei and may be arranged in concentric layers. The cavity of the capsule is frequently obliterated by the contraction of the newly developed tissue, the capsule finally being in close apposition with the glomerulus. Surrounding the capsule is usually a considerable development of connective tissue occu-

pying the space formerly occupied by one to three or more tubules. This tissue may be in a greater or less state of development according to the duration of the process. The older, higher developed capsules are not unfrequently found retracted from this new tissue as shown in two of the photographs, leaving a larger space between them, and the new tissue then is found between the capsule and tuft. This is probably due to the hardening process. This condition might be confounded with the amyloid infiltration but for the application of the iodine test. So prominent a pathological condition seems to have been slighted. Charcot is the only author with whom I am acquainted who gives anything like an adequate account of it. A dozen others whom I have consulted simply refer to a "fibroid degeneration," etc. Grainger Stewart, in his elaborate work on Bright's disease, dismisses the subject as follows: p. 17, "Many of the malpighian bodies are much reduced in size and surrounded by a rather thick sheath of fibrous structure. They do not constitute prominent objects and their size varies remarkably," and even in his article on the cirrhotic form, in which this condition is exaggerated, he states, "The malpighian bodies are seen to be surrounded by dense fibrous tissue, and their capsules greatly thickened." And in the latest publication on Bright's disease by Dr. Tyson, already referred to, it is barely mentioned. On p. 129 is found "the malpighian bodies are surrounded by concentric layers of the same," referring to the connective tissue, and on p. 173 the same statement is made, and to it is added, "Many are shrivelled and atrophied, and an attempt to inject them with colored fluids fails either partially or completely." Even Dickinson in his admirable rendering of the pathology of Bright's disease, is not explicit upon this point.

Changes in the Vascular System. — The changes in the vascular system are well marked. They consist in the results of the inflammatory process as manifest in their walls. The smaller arteries and arterioles are thickened, the capillaries, best examined in the malpighian tufts, exhibit in the earlier stage an increased number of nuclei, probably partly originating from the nuclei of the capillary walls themselves and

partly from the epithelial covering of the glomerulus. As the disease advances the nuclei diminish, become spindle-shaped, and the tuft is transformed into a fibrous ball, enclosed as before described, in a thickened capsule, itself surrounded by a greater or less development of connective tissue. The tuft changes are characteristic. In addition to the multiplication of nuclei referred to, in many instances, the epithelial covering proliferates and we find flat cells in the free cavity of the capsule. Although the free desquamation observed and described by Klebs as glomerulo-nephritis, I have not observed in chronic Bright's disease, a glomerulitis undoubtedly exists in all cases of Bright's disease, and can be traced from simple nuclear proliferation up to the complete fibrous degeneration described. Changes in the intertubular capillaries cannot be made out distinctly owing to their obscuration by the surrounding structures. They are subject to compression from the distended tubules limiting the circulation and producing the characteristic white color.

MENINGO-MYELITIS.

BY W. K. INGERSOLL, M.D., PHILADELPHIA.

July 21st, 1881.—J. F., white, age 2½ years; father and mother blondes; family history good; peevish, restless, frown on forehead, hands tremble; pulse irregular, full and bounding; tongue mapped. I thought the symptoms were probably due to reflex intestinal irritation from worms, and gave cina.

July 22d.—Corrugations of brow deeper; a pinched look in the face; white about the nose and mouth; anxious; flushes go over the face, the left cheek remaining red the longer; head thrown back; scaleni contracted and rigid muscles of face, legs and arms twitch. Complains of pain in arms, and sore over the body; markedly sensitive in the back; mind clear; tongue rather dry, brownish in color; upper lip swollen; cannot move head from side to side; sore throat with difficult swallowing; bowels constipated; urine small in quantity and clear; good appetite; pulse 96; respirations 28, irregular and

sighing; temperature 100.5°. We made the diagnosis of spinal meningitis, uncomplicated; caused, probably, by being knocked down on the pavement, and striking the spinous process of the vertebra prominens.

July 23d.—No more twitching in the limbs, and much less in the face. Muscles of neck less stiff; moves the arms with difficulty; red spots in cheeks that come and go.

July 24th.—Totally paralyzed at noon to-day in arms and lower limbs, also the muscles of the chest; mind clear; no pain in limbs, and urine normal in quantity, although very light in color. Pulse 108, regular; respirations 34, abdominal; temperature 101.5°.

July 25th.—About the same as yesterday; pulse 140; respirations 48; temperature 101°; appetite good.

July 26th.—Round, red spots appear on cheeks after drinking; voice strong. The hyoid muscles and platysma myoides contract at each inspiration, pulling the chin down and apex of chest up, giving a peculiar, distressing appearance to the face. Very restless; wants to be moved from place to place. Pulse 148; respirations 48; constipated.

July 27th.—Mind clear; restless; appetite good; urine and stool natural. Pulse 160; respirations 60; temperature 101.5°.

July 28th.—Mind clear; ordered his breakfast; muscular electrotonus completely lost. He said the Faradic current hurt him. Sensibility not lost. Sighing breathing. Was placed upon a pot at his request, and had a natural stool and passage of urine.

July 29th.—Breathing very short and rapid; mind clear; ordered egg and milk toast for breakfast. Pulse 180. 1 P. M., lost consciousness and had involuntary stool. Died at 6:15 P. M.

No rigor mortis twelve hours after death; no emaciation. We secured the cord of cervical region, and that of third or fourth dorsal; vessels of the spine engorged; dura mater much thickened, and discolored at the exit of the anterior roots, having a light brownish hue.

Under microscopical examination in the sixth and seventh cervical region, and first and second dorsal, we find the dura mater thickened, and filled with leucocytes. The ganglionic

cells of the anterior cornua in parts are only shown by a congregation of small nuclei without any cell wall appreciable. Again we may see the cell wall, and the proliferating nuclei within. As we proceed towards the posterior cornua we find the nerve cells swollen and cloudy without any proliferation of the nuclei, until we reach the posterior cornua. In the aggregation of sensory ganglionic cells, we find them quite normal. Thus we may trace all the changes that take place in acute inflammation of nervous cells, which results in destruction of their function.

The central veins are filled with blood and about them are the white corpuscles most numerous. There is evidently quite a good deal of increase in the neuroglia of the anterior and lateral motor tracts, showing that such an increase of fully formed connective substance may take place in inflammation in as short a time as ten days. The pressure on the nerve tubes of the motor tracts is much greater than in the columns of Goll and Burdach, as sensation was not impaired while motion was totally destroyed, due first to destruction of the motor ganglion cells; secondly, due to the destruction of the nerve tubes in the lateral fasciculi by pressure.

The foregoing case is closely allied to those of infantile paralysis, but differs in some respects. This trouble was of traumatic origin from a blow on the vertebra prominens; the resulting inflammation continuing until the end. In infantile paralysis the fever is of short duration, and is probably due to some systemic condition. Flint is rather of the opinion that infantile paralysis is an essential fever of which the myelitis is a complication or specific lesion. And, again, there is not such meningeal symptoms accompanying infantile paralysis as were present at the beginning of this disease. Seguin, of New York, calls this disease inflammation of the motor tract. Charcot calls it poliomyelitis; also called atrophic spinal paralysis, anterior spinal paralysis, paralysis of anterior horns, etc. The most descriptive name given for this case is that given by Flint: "meningo-myelitis."

The first symptom noticed in this case was the twitching of the muscles of the limbs and facial muscles from increased

reflex excitability, due to irritation of the motor roots, that gave place to paralysis as soon as they were destroyed or pressed upon from the exudation so that their function was impaired. Total paralysis took place about seventy-two hours after the onset of the disease. There was a cessation of the tetanoid contractions of the muscles forty-eight hours after the beginning of the trouble. A time of twenty-four hours elapsing in which the will through the lateral fasciculus could direct motion, before the function in these motor tracts was decidedly interfered with. The pulse was slow and irregular at first, showing the excito-motor nerves of the heart were interfered with, giving the pneumogastric and inhibitory centres full control. Thus the pulse increased steadily until the end. The cilio-pupillary centres were affected in the beginning, the pupils being at times unequal in size. The second day they were normal, reacting to light perfectly. There was also flushing of the face, in the cheeks unequally, showing the vaso-motor disturbance; but this was less after the first forty-eight hours until the end of the case, and seemed to be more or less excited by the act of deglutition.

It has been held by different authors that the cilio-pupillary and vaso-motor centres were located in the cord, all the way from the fourth dorsal up; others say these centres are wholly in the brain. From this case we would infer that these centres were not located in the cord, and were independent of the cord, and were situated in the medulla or cervical sympathetic, and that the action of the pharyngeal muscles in deglutition irritated these centres or their connections, so as to bring on the flush after swallowing.

Constipation marked at first, but after several days the system seemed to recover from the first shock, and the visceral nerves to become normal in their action. Usually the sphincters are affected; in this case it was not so.

After paralysis the electrotonus of the muscles was gone, showing the trophic elements of the cord were destroyed. Sensation was preserved to the last. There were no striking paroxysms of dyspnœa. Although the intercostals were paralyzed, the abdominal muscles and diaphragm were not.

After paralysis took place, the head, which previously was drawn back, could be rolled from side to side by the patient, and the platysma myoides and hyoid muscles took on themselves a new function, that of contracting and aiding the scaleni in the work of raising the chest at each inspiration. We notice the lowness of the temperature, that did not rise nor fall at the near approach of death. Death was really produced by carbonic oxide poisoning, from paralysis of the chest muscles; the slow and steady poisoning was the cause of the regularly increasing pulse and great restlessness.

DUODENAL DISEASE.

BY C. R. NORTON, M.D., PHILADELPHIA.

The case which is here presented illustrates a condition of the duodenum, which is, at least, very rare, and in some particulars differs from anything I have seen elsewhere described.

A married woman, 26 years of age, the mother of two unhealthy children—one of them having Pott's disease of the spine—had, following a self-produced abortion, a diarrhœa which became chronic. This woman had previously never been very well. She was always anæmic, weak and dyspeptic, but had never before suffered from any serious form of disease. Her diarrhœa was not constant. It appeared to be periodical, coming once in about two weeks. The attack would last some days and then gradually subside, the stools during the interval being quite normal. During the time of aggravation the passages were not at all constant in character. They would commonly consist of brown, soft fœcal material, but were upon occasions of pure blood, or else thin, yellow substance. She usually suffered considerable pain with the diarrhœa. This condition of affairs continued through almost a twelve month. There was progressive emaciation, and when death occurred it was, apparently, from exhaustion.

The post-mortem was made eight hours after death. Body was greatly emaciated. The contents of the thorax and abdomen were the only parts examined. The lungs and heart

presented no morbid appearances. The stomach, liver and kidneys were normal. The intestines presented no macroscopical appearances of morbid change, except at the duodenal portion. This, in its entire length, was of pretty even condition. It was greatly hypertrophied, and the valvular conniventes were longitudinally arranged instead of transversely; in portions of the gut the lumen was seriously encroached upon and in some places apparently quite obliterated.

After the duodenum was hardened in alcohol, the following conditions presented themselves upon examination:

1. The thickness of the intestinal wall was found to be 9 m.; the muscular coats being 3 m. in depth and the mucous and submucous tissues 6 m. To demonstrate the amount of hypertrophy present, a section of the wall of a normal piece of duodenum was made and a comparison instituted. The entire thickness of the normal intestine was 2 m., of which the muscular coats occupied 1 m.+, and the mucous and submucous coats 1 m—.

Upon microscopic examination of the hypertrophied gut the thickening of the *muscular coats* was found to be due to pure hypertrophy. No inflammatory changes were discovered —no young cells—only muscle-fibre nuclei and they existed in about the same number and of the same character as normal.

The *submucous tissue* was considerably thickened. The *mucous layer* was infiltrated with young cells, particularly at its base, (*i. e.*, where it rests on the submucous tissue.) There was noticed besides an almost entire absence of duodenal glands (Brunner's). Very few intestinal villi were left standing.

It will be of some interest to note in this connection the pathology of the duodenum. There is not a great deal to be found upon the subject. The paucity of the number of diseased conditions to which the duodenum is liable, renders this fact reasonable; and the physiology of this portion of the intestinal tract will explain the few pathological states which occur. Ulceration similar to that occurring in the stomach, acute and chronic catarrhal inflammation, with sometimes ulceration, and, in rare instances, more or less complete

obstruction of the intestine from hypertrophy of the muscular coats. This last condition is recognized by Leube in his article on 'Intestinal Diseases' in Ziemssen's Cyclopædia.

Jones and Sieveking say of the pathological changes due to chronic inflammation, that there is "a permament tumefaction of the mucous membrane depending, probably, on dilatation of its vessels and interstitial exudation, which causes increased density of its tissue, and may give rise in higher degrees to elongation of the membrane and formation of folds and polypi, hypertrophy of submucous cellular tissue, and of the muscular coats."

The most common affection of the duodenum is acute catarrhal inflammation. This usually produces jaundice, from the fact of the mucous membrane swelling sufficiently to close the biliary duct. It happens occasionally, however, that jaundice is absent both in the acute and chronic forms of the inflammation. In these catarrhal conditions the glands of Brunner are found to be enlarged and the intestinal villi atrophied or destroyed.

The case we have just had under consideration presents, as was said in the beginning, conditions which are rare, and one of which has not to my knowledge been previously noticed.

The absence of jaundice with the very great encroachment upon the lumen of the gut is singular, and the really enormous hypertrophy exceptional. Finally, the almost entire absence of Brunner's glands in a condition where we would expect to find them especially conspicuous, is to one at least a new observation.

NEW BUSINESS.

REPORT OF THE COMMITTEE ON CORRESPONDING SECRETARY'S REPORT.

To the Homœopathic Medical Society of Pennsylvania:

In taking into consideration the suggestions contained in the report of the Corresponding Secretary, your committee would recommend: 1. That the secretary be authorized to offer to new members a copy of one of the bound volumes of the Society's Transactions, free of charge, giving first those of the later dates with the understanding that he keep enough copies of each year to enable him to make up complete sets. 2. That the Society take the necessary steps to remove from its roll of members those who have not complied with the requirements of the By-Laws relating to membership, and to this end would advise the adoption of the following resolution:

Resolved, That the Secretary and Treasurer be instructed to notify all members in arrears beyond the legal limit that their names will be reported at the next meeting of the Society for legal action, unless some satisfactory explanation is given.

We would further recommend that the Publishing Committee be instructed to have printed only a sufficient number of copies of the Transactions to supply the members and the number necessary to be sent to the journals, colleges, public libraries, etc., so that in the future such an accumulation may not again occur, and that any volumes remaining, not needed, be disposed of for a price not less than one dollar a volume.

Respectfully submitted,

L. H. Willard, M.D.,
M. M. Walker, M.D.,
R. E. Caruthers, M.D.,
Committee.

On motion, the suggestion of the Philadelphia County Society that steps be taken to secure homœopathic representation in some of the State hospitals for the insane, was referred to the Legislative Committee with power to act.

The bill of the Corresponding Secretary for stationery and postage, and for mailing Transactions of 1881, being presented, the Treasurer was instructed to pay it.

On motion, a vote of thanks was tendered the *Morning Tribune*, of Altoona, and to Dr. Hugh Pitcairn, as its representative, for the full and interesting reports of our proceedings.

Dr. WILLARD moved that a vote of thanks be tendered to the President, Vice Presidents, Secretaries and Treasurer for the acceptable manner in which they have performed their duties. Carried.

Dr. MARTIN moved a vote of thanks to the Hotel Company for their numerous courtesies. Carried.

On motion of Dr. BURGHER, the Society then proceeded to the election of officers for 1883, which resulted as follows:

President,	P. DUDLEY, M.D.
First Vice President,	HUGH PITCAIRN, M.D.
Second Vice President,	C. F. BINGAMAN, M.D.
Recording Secretary,	T. M. STRONG, M.D.
Corresponding Secretary,	R. E. CARUTHERS, M.D.
Treasurer,	J. F. COOPER, M.D.
Necrologist,	W. R. CHILDS, M.D.
Censors,	E. C. PARSONS, M.D. D. M. GRAHAM, M.D. MARIA N. JOHNSON, M.D.

Communications having been received from the physicians of Wilkes-Barre, Meadville and Philadelphia, inviting the Society to hold its next meeting at each of these places, on ballot, it was decided to meet in Philadelphia. The time fixed for the meeting was between the 15th and last of September, 1883.

On motion of Dr. BURGHER, the Philadelphia County Society was constituted a local Committee of Arrangements, to act in conjunction with the Committee of Arrangements of this Society.

The following appointments were then announced:

COMMITTEE OF ARRANGEMENTS.—The Officers of the Society.

COMMITTEE ON SUBSCRIPTION.—J. F. Cooper, M.D.

COMMITTEE ON LEGISLATION. — Drs. Hugh Pitcairn, L. H. Willard, J. K. Lee, of Philadelphia, J. H. McClelland.

COMMITTEE OF PUBLICATION. — Drs. T. M. Strong, Z. T. Miller, J. F. Cooper, R. E. Caruthers.

Delegates to the American Institute of Homœopathy. —Drs. M. M. Walker, C. Van Artsdalen, P. Dudley, J. C. Burgher, J. F. Cooper, D. M. Graham.

Bureau of Organization, Registration and Statistics.— R. E. Caruthers, M.D., *Chairman*, Drs. J. L. Ferson, T. M. Strong, C. Mohr, F. R. Schmucker.

Bureau of Ophthalmology and Otology.— W. H. Bigler, M.D., *Chairman*, Drs. C. Bartlett, H. F. Ivins, W. H. Winslow, J. E. Jones.

Bureau of Obstetrics. — Maria N. Johnson, M.D., *Chairman*, Drs. R. E. Caruthers, W. J. Martin, M. J. Chapman, S. W. S. Dinsmore, A. M. Hawley, M. J. Buck, H. H. Hofmann.

Bureau of Sanitary Science.—J. F. Cooper, M.D., *Chairman*, Drs. S. C. Scott, Theo. M. Johnson, J. K. Lee, of Phila., Z. T. Miller.

Bureau of Surgery.—L. H. Willard, M.D., *Chairman*, Drs. J. H. McClelland, W. R. Childs, C. M. Thomas, J. E. James, M. J. Buck, J. A. Bullard.

Bureau of Pædology.— M. M. Walker, M.D., *Chairman*, Drs. T. M. Strong, J. R. Humes, W. B. Van Lennep, C. Van Artsdalen, J. K. Lee, of Johnstown, E. S. Sharpless, S. F. Shannon, J. C. Guernsey.

Bureau of Materia Medica.—Hugh Pitcairn, M.D., *Chairman*, Drs. E. A. Farrington, C. Mohr, I. G. Smedley, W. B. Van Lennep, I. Lefever, W. R. Childs, D. Cowley.

Bureau of Gynæcology.—J. B. McClelland, M.D., *Chairman*, Drs. J. C. Morgan, B. F. Betts, J. C. Burgher, J. H. Marsden.

Bureau of Pathology and Pathological Anatomy.— A. R. Thomas, M.D., *Chairman*, Drs. W. C. Goodno, J. B. McClelland, J. W. Detwiller, J. A. Bullard.

Bureau of Clinical Medicine.—W. J. Martin, M.D., *Chairman*, Drs. A. Lippe, C. F. Bingaman, E. C. Parsons, C. C. Rinehart, A. P. Bowie, J. K. Lee, of Johnstown, H. J. Evans.

The Society then adjourned.

CONSTITUTION AND BY-LAWS.

CONSTITUTION.

ARTICLE I.—Name and Object.

This Association shall be known as the Homœopathic Medical Society of the State of Pennsylvania.

Its object is the advancement of medical science.

ARTICLE II.—Members.

This Society shall be composed of active, honorary and corresponding members, who shall be chosen in conformity with the By-Laws.

ARTICLE III.—Officers.

The officers of this Society shall be a President, two Vice Presidents, a Recording Secretary, a Corresponding Secretary, a Treasurer, a Necrologist, and a Board of Censors consisting of three members; who shall be chosen at such time, in such manner, and for such a period, and shall perform such duties as the By-Laws may direct.

ARTICLE IV.—Amendment.

This Constitution may be altered or amended by a vote of two-thirds of the members present at the annual meeting; provided, that notice of such intended alteration or amendment shall have been given to the Society, in writing, at the annual meeting next preceding.

BY-LAWS.

ARTICLE I.—Meetings.

Section 1. The annual meeting of this Society shall be held at 10 A. M., at the time and place decided upon at the annual session next preceding.

Seven members shall constitute a quorum for the transaction of business.

Sec. 2. The elected officers of the Society shall have power to direct such other meetings to be held as they may judge advisable.

ARTICLE II.—Officers.

The officers shall be elected by ballot at each annual meeting of the Society, and shall enter upon their respective duties on the first day of January next succeeding their election.

ARTICLE III.—Duties of Officers.

Section 1. The President shall preside at the meetings of the Society, preserve order therein, put questions, announce decisions, and appoint committees not otherwise ordered. He shall deliver an address at the opening of the session.

Sec. 2. The Vice Presidents, in the order of their election, shall perform the duties of the President, in his absence.

Sec. 3. The Recording Secretary shall keep a record of all the proceedings and resolutions, and of all discussions that may occur in the Society; authenticate by his signature all papers and acts of the Society, when the occasion requires it, and bring before the Society any business, needing its action, not otherwise presented.

Sec. 4. The Corresponding Secretary shall receive and preserve all letters addressed directly to the Society; open and maintain such correspondence as shall tend to advance its interests; give at least two weeks' notice, to the members, of all meetings of the Society; keep a record of all members, with the date of admission of each; present all communications to the Society; notify all committees of their appointment and of

the business referred to them, and notify all members of their election. He shall be *ex officio* chairman of the Bureau of Organization, Registration and Statistics.

Sec. 5. The Treasurer shall notify, annually, all members of their arrearages, collect all money belonging to the Society, and make all disbursements ordered by the Society. He shall furnish, at each annual meeting, a written report of his receipts and expenditures and a statement of the condition of the finances.

Sec. 6. The Necrologist shall, upon the death of a member of the Society, prepare a suitable obituary and present it to the Society; he shall also forward a copy, properly engrossed, to the family of the deceased member, if so ordered by the Society.

The report of the Necrologist shall be presented in connection with the reports and papers of the Bureau of Organization, Registration and Statistics.

Sec. 7. The Censors shall receive and examine the credentials of candidates for membership, and shall report to the Society, for election, such as may be found to be properly qualified.

Their report can be made in its regular order or at the close of the report of any bureau.

ARTICLE IV.—Membership.

Section 1. *Active.*—A candidate for active membership shall present to the Board of Censors a written application, signed by himself, accompanied by a certificate, from two members of the Society in good standing, that the applicant has received the degree of Doctor of Medicine, from an incorporated medical college; that he subscribes to the doctrine of *Similia Similibus Curantur*, and that he sustains a good moral character. If found qualified, he may be elected a member. He shall not, however, be considered a member until he has paid an initiation fee of five dollars (which includes the first year's dues), and signed the Constitution, either in person or by proxy.

Any active member removing from the State, wishing to re-

tain his membership, shall notify the Society to that effect; otherwise his name shall be dropped from the roll.

Any active member who fails either to attend the annual meeting or to send a paper, once in five years, or to pay his dues, shall, upon vote of the Society, be dropped from membership.

Sec. 2. *Honorary.*—Any homœopathic physician, not a resident of Pennsylvania, who, from his superior attainments, may be judged worthy, may be elected an honorary member at any annual meeting, but not more than two shall be elected in one year.

Such honorary members shall have all the privileges of members except the right to vote and to hold office.

Sec. 3. *Corresponding.*—Any homœopathic physician, residing outside of the United States, may be elected a corresponding member, at any annual meeting, but not more than two shall be elected in one year.

Such corresponding members shall have all the privileges of members except the right to vote and hold office.

ARTICLE V.—Dues.

Active members shall pay, annually, in advance, the sum of three dollars toward defraying the expenses of the Society.

The published proceedings of the Society will be furnished only to those members who are not in arrears.

ARTICLE VI.—Bureaus and Committees.

Section 1. The following Bureaus shall be appointed as hereinafter provided:

One of Materia Medica and Provings.
One of Homœopathic Institutes and Clinical Medicine.
One of Surgery.
One of Obstetrics.
One of Gynæcology.
One of Pathology and Pathological Anatomy.
One of Ophthalmology and Otology.
One of Pædology.
One of Sanitary Science.
One of Organization, Registration and Statistics.

SEC. 2. Each bureau shall be composed of not less than five members.

SEC. 3. Each bureau shall present, in its annual report, a resume of the discoveries and progress in its special department, together with the papers presented for discussion. The bureaus shall report in order of rotation, each succeeding year.

SEC. 4. The bureau of Organization, Registration and Statistics, shall receive all credentials of delegates to the Society; receive and preserve all reports from local or State societies, colleges and other institutions; keep a record of the number of members admitted and withdrawn from the Society; solicit an exchange of publications with other State societies; and perform such other duties as may be directed by the Society. From these data, the annual report of the bureau shall be prepared.

SEC. 5. Immediately upon the close of the report of a bureau, the President shall appoint a chairman for the ensuing year; and the chairman so appointed shall, in conjunction with the President, select his associates, and the list of members of the bureau shall be announced before the close of the session.

SEC. 6. If any member of a bureau shall resign or decline to serve, the chairman of the bureau shall fill the vacancy by appointment, and notify the Corresponding Secretary of the fact.

SEC. 7. The following Standing Committees shall be appointed, as hereinafter provided for:

A Legislative Committee.

A Publishing Committee.

SEC. 8. Each of these committees shall consist of at least three members to be appointed by the President.

SEC. 9. The Legislative Committee shall give special attention to all legislation involving the interests of the Society.

SEC. 10. The Publishing Committee shall publish and issue the Transactions, to all who are entitled to receive them, within three months from the date of the meeting, unless otherwise directed by the Society at its annual meeting.

The Recording and Corresponding Secretaries and the Treasurer shall constitute this committee, but the number of members may be increased at the discretion of the Society.

ARTICLE VII.—Papers and Discussions.

Section 1. Each paper presented to the Society shall be through its appropriate bureau. All papers to be presented by any bureau shall be in the hands of the chairman thereof, at least two months prior to the meeting of the Society; and the chairman of a bureau shall have plenary power, and it shall be his duty to prepare an abstract of the various papers, and these only shall be presented to the meeting for its consideration and discussion; nevertheless, all papers shall be published in the Transactions in full as written, subject to the approval and revision of the Committee of Publication. No report or paper will be received, by the Society, in an incomplete or unfinished condition; and no paper shall be published as part of the Transactions, which has been previously published.

Sec. 2. All communications read before the Society shall become its property; but no paper shall be published as part of the transactions of the Society without its sanction.

Sec. 3. All discussions shall be strictly confined to the subject of the paper or report, and each speaker shall be limited to a speech of ten minutes, and to one of five minutes if he speaks a second time, and no excess of time shall be allowed except by consent of the Society. The reader of the paper shall be allowed ten minutes at the close of the discussion.

Sec. 4. Each county or local society shall be invited to prepare and discuss, during the year, a paper upon some medical subject, and present it to the Society at its annual meeting, through its appropriate bureau.

ARTICLE VIII.—Amendments.

These By-Laws may be altered or amended by a vote of two-thirds of the members present at any annual meeting.

ORDER OF BUSINESS.

1. Calling meeting to order.
2. Address by the President.
3. Roll-call and correction of list of members.
4. Appointment of Committee on President's Address.
5. Report of Treasurer.
6. Appointment of Auditing Committee.
7. Report of Corresponding Secretary.
8. Reports of Committees.
9. Report of Censors and Election of Members.
10. Reports of Bureaus.
11. Unfinished Business.
12. New Business.
13. Election of Officers.
14. Announcement of Bureaus and Committees.
15. Adjournment.

LIST OF MEMBERS.

1870. Allen, J. W., M.D., Altoona.
1876. Ashton, A. H., M.D., 730 S. 10th St., Philadelphia.
1881. Bartlett, Clarence, M.D., 623 N. 16th St., Philadelphia.
1876. Bechtel, J. W., Jr., M.D., Harrisburg.
1875. Betts, B. F., M.D., 1700 Girard Ave., Philadelphia.
1872. Bigler, W. H., M.D., 118 N. 12th St., Philadelphia.
1873. Bingaman, C. F., M.D., 294 Penn Ave., Pittsburgh.
1872. Boardman, W. H., M.D., Butler St., Pittsburgh.
1878. Boley, A., M.D.
1872. Bowie, A. P., M.D., Uniontown.
1880. Boyd, J. S., M.D., New Sheffield.
1882. Boyer, Francis W., M.D., Pottsville.
1875. Bradford, L. J., M.D., Sylvania.
1872. Brickley, Obadiah C., M.D, York.
1881. Brooks, Chas. M., M.D., 1613 N. 10th St., Philadelphia.
1879. Buck, M. J., M.D., Altoona.
1877. Bullard, J. A., M.D., Wilkes-Barre.
1881. Bunting, H. M., M.D., Norristown.
1866. Burgher, J. C., M.D., 332 Penn Ave., Pittsburgh.
1875. Canfield, Corresta T., M.D., 244 Lincoln Av., Chicago, Ill.
1868. Carmany, C. J., M.D., Harrisburg.
1873. Caruthers, R. E., M.D., 107 Arch St., Allegheny City.
1873. Chantler, I. B., M.D., Sewickley.
1875. Chapman, Millie J., M.D., 288 Penn Ave., Pittsburgh.
1868. Charlton, S. T., M.D., Harrisburg.
1866. Childs, W. R., M. D., 306 Penn Av., Pittsburgh.
1868. Christ, William F., M.D., Parryville.
1873. Cook, I. Elmer, M.D., Harrisburg.
1866. Cooper, J. F., M.D., 42 N. Diamond St., Allegheny City.
1866. Cowley, David, M.D., Station A, Pittsburgh.
1882. Cranch, Edward, M.D., Erie.
1875. Crawford, J. S., M.D., Greensburg.
1882. Dean, E. W., M.D., Braddock.

1866. Detwiller, Henry, M.D., Easton.
1866. Detwiller, John J., M.D., Easton.
1879. Detwiller, J. W., M.D., Bethlehem.
1878. Dinsmore, S. W. S., M.D., Sharpsburg.
1880. Doolittle, E. D., M.D., Easton.
1867. Dudley, Pemberton, M.D., 15th and Master Sts., Phila.
1878. Duff, P. S., M.D., Great Belt.
1882. Du Four, W. M., M.D., Williamsport.
1875. Dunn, James L., M.D., Titusville.
1881. Dunning, T. S., M.D., 1328 N. 15th St., Philadelphia.
1870. Earhart, J. R., M.D., 1839 Arch St., Philadelphia.
1873. Edmundson, W. F., M.D., 375 5th Ave., Pittsburgh.
1882. Evans, H. J., M.D., Tyrone.
1870. Farrington, E. A., M.D., 1738 Green St., Philadelphia.
1880. Ferson, J. L., M.D., 175 Wylie Ave., Pittsburgh.
1873. Fulton, H. W., M.D., Penn and Hiland Aves., Pittsburgh.
1867. Garvin, John J., M.D., 1546 N. 11th St., Philadelphia.
1866. Gause, Owen B., M.D., 1519 Arch St., Philadelphia.
1870. Gessler, C. W., M.D., 1332 S. 5th St., Philadelphia.
1879. Getze, G. M., M.D., Tarentum.
1875. Goodno, W. C., M.D., 4003 Chestnut St., Philadelphia.
1875. Graham, D. M., M.D., Altoona.
1867. Gramm, G. E., M.D., 1656 Vienna St., Philadelphia.
1881. Griffith, Silas, M.D., 1431 Girard Ave., Philadelphia.
1877. Griffith, W. M., M.D., 2035 Ridge Ave., Philadelphia.
1877. Grumbein, William, M.D., Annville.
1866. Guernsey, H. N., M.D., 1423 Chestnut St., Philadelphia.
1874. Guernsey, J. C., M.D., 1923 Chestnut St., Philadelphia.
1875. Guernsey, W. J., M.D., 4430 Frankford Ave., Phila.
1867. Gumpert, B. Barton, M.D., 840 Franklin St., Phila.
1879. Hall, Wm. D., M.D., Altoona.
1873. Harpel, Edw. N., M.D., Shenandoah.
1881. Hawley, Annie M., M.D., Pughtown.
1873. Herron, C. D., M.D., 17 Butler St., Pittsburgh.
1882. Hofmann, C. H., M.D., 260 Penn Ave., Pittsburgh.
1866. Hofmann, H. H., M.D., 260 Penn Ave., Pittsburgh.
1871. Huebener, O. T., M.D., Litiz.
1880. Humes, J. R., M.D., Hollidaysburg.

1882. Ivins, Horace F., M.D., 1305 Arch St., Philadelphia.
1866. James, Bushrod W., M.D., 18th and Green Sts., Phila.
1867. James, John E., M.D., 10th and Green Sts., Philadelphia.
1870. James, Walter M., M.D., 123 N. 21st St., Philadelphia.
1877. Johnson, Maria N., M.D., 1521 Green St., Philadelphia.
1881. Johnson, Theo. M., M.D., Pittston.
1869. Jones, Jos. E., M.D., West Chester.
1881. Karsner, Daniel, M.D., 4830 Main St., Germantown.
1875. Kern, W. H., M.D., McKeesport.
1881. Kimball, H. Augusta, M.D., 1110 Walnut St., Phila.
1877. Knerr, C. B., M.D., 112 N. 12th St., Philadelphia.
1866. Koch, Aug. W., M.D., 118 N. 12th St., Philadelphia.
1873. Kœnig, M. J., M.D., Jersey Shore.
1872. Korndœrfer, Aug., M.D., 648 N. 12th St., Philadelphia.
1877. Lee, E. J., M.D., 2107 Chestnut St., Philadelphia.
1866. Lee, John K., M.D., 3800 Chestnut St., Philadelphia.
1879. Lee, John K., M.D., Johnstown.
1873. Lefever, Isaac, M.D., Harrisburg.
1867. Lippe, Ad., M.D., 1204 Walnut St., Philadelphia.
1866. Liscomb, P. D., M.D., Beaver Falls.
1869. Macfarlan, Malcolm, M.D., 1805 Chestnut St., Phila.
1868. Malin, George W., M.D., 70 W. Chelten Ave., Germantown.
1866. Malin, John, M.D., 70 W. Chelten Ave., Germantown.
1877. Malin, Wm. H., M.D., Chestnut Hill, Philadelphia.
1881. Mansfield, J. R., M.D., 4852 Main St., Germantown.
1866. Marsden, J. H., M.D., York Sulphur Springs.
1866. Martin, H. N., M.D., 1218 Walnut St., Philadelphia.
1877. Martin, W. J., M.D., 1708 Carson St., S. S., Pittsburgh.
1878. Maurer, J. M., M.D., Washington.
1881. May, Newton, M.D., Holmesburg.
1871. Mercer, Robert P., M.D., Chester.
1871. Middleton, Caleb S., M.D., 646 N. 10th St., Philadelphia.
1877. Miller, Z. T., M.D., 1729 Carson St., S. S., Pittsburgh.
1875. Mohr, Charles, M.D., 555 N. 16th St., Philadelphia.
1867. Morgan, John C., M.D., 1706 Green St., Philadelphia.
1881. Mullin, S. A., M.D., West Chester.
1866. McClatchey, Robert J., M.D., 918 N. 10th St., Phila.
1879. McClelland, J. B., M.D., 319 Penn Ave., Pittsburgh.

1867. McClelland, J. H., M.D., 319 Penn Ave., Pittsburgh.
1866. Neville, W. H. H., M.D., 19th and Fairmount Ave., Phila.
1870. Parsons, Anson, M.D., Springboro.
1881. Parsons, E. C., M.D., Meadville.
1880. Peach, Wm., M.D., 115 Arch St., Allegheny City.
1881. Perkins, C. W., M.D., Chester.
1868. Pfouts, J. S., M.D., Wilkes-Barre.
1870. Pierce, W. A. D., M.D., 1817 N. 11th St., Philadelphia.
1880. Pitcairn, Hugh, M.D., Harrisburg.
1881. Pratt, J. W., M.D., Coatesville.
1871. Pratt, Trimble, M.D., Media.
1866. Preston, Mahlon, M.D., Norristown.
1882. Pursel, J. E., M.D., Renovo.
1880. Putnam, T. J., M.D., 264 Penn Ave, Pittsburgh.
1875. Ramage, R. Y., M.D., Mansfield Valley.
1872. Rankin, J. S., M.D., 59 Grant St., Pittsburgh.
1866. Raue, Charles G., M.D., 121 N. 10th St., Philadelphia.
1867. Reading E., M.D., Hatboro.
1866. Reading, John R., M.D., Somerton.
1878. Rinehart, C. C., M.D., Marion Station, Pittsburgh.
1871. Rittenhouse, S. R., M.D., Reading.
1880. Robson, J. W., M.D., Pittsburgh.
1873. Roseberry, C. I., M.D., Easton.
1866. Rousseau, L. M., M.D., 210 Penn Ave., Pittsburgh.
1872. Rutter, J. C. M.D., Bloomsburg.
1872. Sartain, Harriet J., M.D., 210 Franklin St., Philadelphia.
1874. Schmucker, F. R., M.D., Reading.
1880. Scott, S. C., M.D., 319 Penn Ave., Pittsburgh.
1868. Seip, C. P., M.D., 216 Penn Ave., Pittsburgh.
1875. Shannon, O. R., M.D., 207 Lacock St., Allegheny City.
1879. Shannon, S. F., M.D., 87 Arch St., Allegheny City.
1881. Sharpless, E. S., M.D., 926 N. 8th St., Philadelphia.
1880. Smedley, I. G., M.D., 34 N. 19th St., Philadelphia.
1870. Spencer, J. H., M.D., 1306 N. 7th St., Philadelphia.
1881. Stambach, H. L., M.D., 702 N. 19th St. Philadelphia.
1875. Strong, T. M., M.D., 45 Montgomery Ave., Allegheny City.
1881. Swartz, J. R., M.D., Harrisburg.
1881. Thatcher, J. W., M.D., 35th and Hamilton Sts., Phila.

1871. Thomas, A. R., M.D., 1733 Chestnut St., Philadelphia.
1877. Thomas, Charles M., M.D., 1313 Arch St., Philadelphia.
1881. Tomlinson, W. H., M.D., 2 E. School St., Germantown.
1881. Toothaker, C. E., M.D., 1717 Francis St., Philadelphia.
1882. Trites, W. B., M.D., 4500 Baker St.. Manayunk, Phila.
1881. Umstead, D. B., M.D., Tacony, 23d Ward, Philadelphia.
1877. Van Artsdalen, C., M.D., Chelten Hills.
1881. Van Lennep, W. B., M.D., 623 N. 16th St., Philadelphia.
1867. Walker, Mahlon M., M.D., Germantown, Philadelphia.
1871. Wallace, Thomas C., M.D., 281 Beaver Ave., Allegheny.
1866. Wallace, M. W., M.D., 35 N. Diamond St., Allegheny.
1871. Wareheim, Edward A., M. D., Glen Rock.
1870. Waters, George H., M.D., 474 N. 6th St., Philadelphia.
1880. Way, J. H., M.D., West Chester.
1870. White, N., M.D., New Castle.
1881. Weaver, Chandler, M.D., Fox Chase, 23d Ward, Phila.
1881. Williams, H. E., M.D., Coatesville.
1866. Williams, Thomas C., M.D., 567 N. 5th St., Philadelphia.
1873. Williamson, M. S., M.D., 29 N. 11th St., Philadelphia.
1866. Willard, L. H., M.D., 67 Arch St., Allegheny City.
1870. Willits, William, M.D., Williamsport.
1877. Winslow, W. H., M.D., 334 Penn Ave., Pittsburgh.
1866. Wood, James B., M.D. West Chester.
1866. Woods, Stephen, M.D., McDonald Station.
1880. Yoder, D., M.D., Catasauqua.
1874. Young, J. H., M.D., 1910 Pine St., Philadelphia.
1880. Zerns, W. M., M.D., 1207 Wallace St., Philadelphia.

HONORARY MEMBERS.

1868. Dake, Jabez P., M.D., Nashville, Tenn.
1868. Doran, Charles R., M.D., Hagerstown, Md.
1868. Helmuth, William Tod, M.D., New York City.
1876. Jones, S. A., M.D., Ann Arbor, Mich.
1876. Lilienthal, S., M.D., New York City.
1868. Paine, H. M., M.D., Albany, N. Y.
1868. Pulte, J. H., M.D., Cincinnati, O.
1868. Rockwith, F. A., M.D., East Saginaw, Mich.
1868. Talbot, I. T., M.D., Boston, Mass.

CORRESPONDING MEMBERS.

1873. Alvarez, Paz, M.D., Madrid, Spain.
1881. Bender, Prosper, M.D., Quebec, Canada.
1882. Bernard, H., M.D., Mons, Belgium.
1873. Chauvet, Fernand, M.D., Tours, France.
1873. Eidherr, Francis, M.D., Vienna, Austria.
1873. Nichol, Thomas, M.D., Montreal, Canada.
1873. Pope, Alfred C., M.D., London, England.

NECROLOGICAL LIST.

1866. Barnaby, John E., M.D., died January 5th, 1869.
1867. Barrett, Charles B., M.D., died June 5th, 1871.
1866. Blakely, W. James, M.D., died January 14th, 1877.
1870. Bratt, Benj. R., M.D., died January 31st, 1872.
1866. Brooks, Silas S., M.D., died July 2d, 1871.
1866. Cooke, Wm. H., M.D., died March 21st, 1879.
1866. Cote, M., M.D., died May 29th, 1878.
1871. Dreibelbis, David L., M.D.
1866. Friese, Michael, M.D., died February 4th, 1880.
1866. Frost, J. H. P., M.D., died January 21st, 1875.
1866. Gardiner, Richard, M.D., died March 22d, 1877.
1870. Guernsey, Wm. F., M.D., died February 16th, 1877.
1866. Herron, James A., M.D., died November 15th, 1868.
1873. Houard, J. G., M.D., died April 24th, 1878.
1866. James, David, M.D., died June 6th, 1873.
1866. Jeanes, Jacob, M.D., died December 18th, 1877.
1871. Lovejoy, E., M.D., (honorary,) died August 15th, 1872.
1870. Moore, Thomas, M.D., died March 25th, 1882.
1869. Ostrander, W. M., M.D., died August 23d, 1881.
1868. Payne, Wm. E., M.D., (honorary,) died March 9th, 1877.
1878. Pereira, Ignacio, M.D., (correspndg,) died April 18th, '81.
1866. Preston, Coates, M.D., died August 9th, 1881.
1870. Reinhold, H. E., M.D., died March 6th, 1879.
1866. Roberts, R. Ross, M.D., died April 4th, 1875.
1872. Scott, James L., M.D., died August 15th, 1876.
1872. Speth, W. F., M.D., died May 11th, 1881.
——. Stauffer, D. R., M.D., died March 16th, 1874.
1867. Stevens, C. A., M.D., died January 17th, 1881.
1870. Taudte, F., M.D., died March 27th, 1878.
1866. Williamson, Walter, M.D., died December 19th, 1870.
1866. Williamson, Walter M., M.D., died May 5th, 1874.

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